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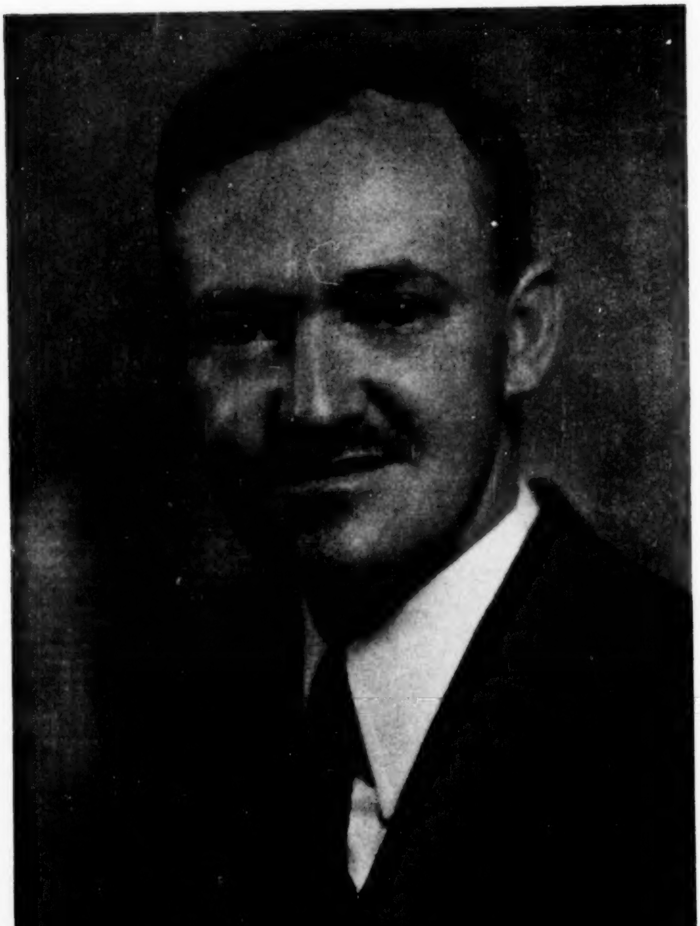

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INTERNATIONAL TRADE WITHOUT MARKETS—THE SOVIET BLOC CASE

By EDWARD AMES*

This paper will analyze the foreign trading system of the Soviet bloc countries, which have the most extreme form of direct controls known in history over both their internal and international transactions. Two general questions will be considered: (1) can a country using only direct controls decide what its imports and exports will be; and (2) are direct controls over international transactions a sufficient condition for external equilibrium? The purpose of this analysis is to illuminate, by means of an admittedly atypical case study, some of the issues involved in the perennial discussion of the relative effectiveness and desirability of direct controls, in contrast to monetary and fiscal controls, as a means of establishing or maintaining external balance.

Since information in English on trade and exchange practices of the Soviet bloc countries is rather sparse, the discussion will set forth the main economic relations in the Soviet bloc. Since East-West trade is now much smaller than trade within the Soviet bloc, little emphasis will be placed upon the former.

I. *Trade and Payments Procedures*

Trade within the Soviet bloc is typically carried out on the basis of bilateral agreements between Ministries of Foreign Trade.[1] These an-

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[1] The USSR trades through special corporations owned wholly by the Ministry; the satellites set up similar corporations at the time they nationalized foreign trade. However, there is evidence that in some cases these corporations in the satellites may be the same organizations as those carrying on internal wholesale operations and that the increase in trade planning within the Soviet bloc may reduce the operational importance of the Ministry.

nual agreements list the amounts of each commodity to be exported by each trading partner. They provide that shipments in each direction should be equal over each six-month period; within each such period, however, a country may have an import or export surplus, which will be financed by an automatic (swing) credit not to exceed specified limits (the swing ceiling). If at the end of the year there should still be swing credit outstanding, exports of the debtor country during the first quarter of the following year will in part be used to pay off this debt rather than to finance current imports.[2] The same terms seem to prevail in intersatellite trade agreements.[3] Since there is also trade under credit and reparations agreements, however, total deliveries of goods in each direction between each pair of countries need not balance.[4]

The important sense in which bilateralism exists within the Soviet bloc is that even in cases where trade does not balance, current payments within the bloc must balance bilaterally.[5] One bloc country may

[2] Korolenko, "Principles of Equality and Mutual Advantage in the Trade of the USSR with the European People's Democracies," *Voprosy Ekonomiki,* 1952, V, No. 3, 26-27.

[3] Bloc countries have entered into multilateral agreements only in trilateral agreements involving USSR, Finland, and individual satellites. In no known case are all three parties to a trilateral agreement bloc members. Soviet writers sometimes imply that trade is multilateralized *within the bloc,* but their statements can be interpreted either as meaning that the bloc members having transferable sterling accounts settle *among themselves* in sterling, or (more probably) that they settle *with countries outside the bloc* in sterling. (Evreiskov, "Methods of Strengthening International Financial Relations," *Voprosy Ekonomiki,* V, No. 3, 1952; Polyakov and Trubenkov, "The State Bank and International Monetary Transactions of the USSR," *Finansy i Kredit SSSR,* No. 2, 1952).

[4] Soviet writers make a virtue out of the necessity of bilateralism by arguing that only bilaterally balanced trade is equitable, since otherwise one partner receives more imports than the other and gets into balance-of-payments difficulties. See Paramov, "Forms and Methods of Economic Collaboration between the USSR and the People's Democracies," *Voprosy Ekonomiki,* 1950, III, No. 12, 37, 41; Shkarenkov, "Economic Collaboration of the USSR and the People's Democracies," *Planovoe Khozyaistvo,* No. 3, 1952, p. 62; *Vneshnyaya Torgovlya,* editorial, 1952, XXII, No. 4, 2-3.

[5] "Large uncovered claims in the (clearing) accounts arise chiefly on the basis of an excess of exports over imports and take the form of an active balance or the form of exchange which, however, cannot be transferred to a third country. . . . Deliveries of goods between countries of this type are the result of their economic planning, and short-term temporary (trade imbalances) are quickly compensated by contractual deliveries." Alfred Siebeneichen, "Intergovernmental Settlements under Socialism," *Deutsche Finanzwirtschaft,* 1953, VII, No. 3, 119. An apparently contradictory statement by a Bulgarian source states that "Special ruble accounts are opened in the banks of contracting countries to carry out payments for goods turnover and for (related) expenses. . . . The contracting parties make transfers in rubles from one currency to another at the established rate." (A.S., "Economic Collaboration of the Countries in the Camp of Socialism," *Finansy i Kredit* (Sofiya), No. 9, 1951, p. 75.) The contradiction disappears if "contracting parties" means "trading partners," with the "transfers" referring to entries, in two accounts created under a particular bilateral agreement. There may, however, be some transfers of Free World currency among bloc members. One source says "The transfer in rubles of foreign exchange to another contracting party is made at an agreed rate" (Korolenko, *op. cit.,* p. 27). If the use of "agreed rate" rather than "established rate" is not accidental, this sentence means such transfers are not necessarily made on the basis of the official cross-rates.

not use a bilateral surplus with a second bloc country to cover a deficit with a third. Soviet writers, it is true, claim that since all bloc currencies are defined in gold, transferability should be possible (although they do not claim that it is now practiced).[6] The problem, however, is not that the unit of account is ambiguous in terms of gold, but rather that: (1) the amount of goods which a unit of gold represents will vary depending upon the pair of countries trading together; (2) the volume and direction of trade will not change in response to price or exchange rate changes; and (3) there is no automatic mechanism (apart from ceilings on swing credits) for correcting trade imbalances between any pair of countries, and hence no mechanism for equalizing total imports and exports of any country.

Goods moving in international trade within the bloc are credited to special ruble accounts opened in the name of the exporting country by the central banks of the trading partners. These ruble accounts are "purely bookkeeping devices," in that a country with a credit balance in such an account can apparently use it only to pay for direct imports from the country from which it earned the balance. In particular, these "rubles" are claims on the State Bank of the USSR only where they represent the proceeds of exports to the USSR.

The ruble prices at which goods are valued in these accounts are determined in the process of negotiating trade agreements. Soviet bloc writers, of course, describe them as "just," and as ensuring "equality of treatment" to all participants.[7] The actual basis of price fixing, so lyrically described by these economists, is not known. The Yugoslav press has claimed that in 1949 the USSR purchased Rumanian oil at world prices, which were below Rumanian costs, and resold it to Hungary and Czechoslovakia at Soviet domestic prices, which were above world prices. On the other hand, the USSR resold zinc concentrate purchased from Bulgaria at prices below the Bulgarian export price.[8] Until 1953, there was no explanation of the "single principle" of pricing which would cover both these cases. However, it was stated in 1953 that: (1) all prices are fixed in the trade agreements, and may be altered only after a year or more has elapsed; and (2) each exporting country charges the same prices to all other bloc countries.[9]

[6] See the review of Z. V. Atlas' "Strengthening of the Monetary Systems of the USSR and the People's Democracies" by Gusakov, in *Finansy i Kredit SSSR*, No. 1, 1952, and a later article by Atlas, "Some Problems in the Theory of Soviet Money," in *Voprosy Ekonomiki*, 1953, VI, No. 7, 33-35.

[7] Korolenko, *Voprosy Ekonomiki, op. cit.*, p. 27; Paromov *Voprosy Ekonomiki, op. cit.*, p. 41; Shkarenkov, *Planovoe Khozyaistvo, op. cit.*, p. 62; A.S., *op. cit.*, p. 75.

[8] *New York Times* and *Herald Tribune*, April 24, 1950 summarize a series of articles from Belgrade paper *Politika* on this subject.

[9] Dudinski, "The Strengthening and Development of the World Democratic Market," *Voprosy Ekonomiki*, 1953, VI, No. 6, 54.

Although there is no indication how the "uniform price" charged by each exporter is calculated, the payments procedures suggest that each bloc country sells to others on the general basis of its own internal wholesale prices, converted into clearing rubles at the official exchange rate.[10] Since the price structures of the various Soviet bloc countries differ, and since the exchange rate need not reflect a purchasing power parity, each country will have its own export prices. Transferability of clearing ruble balances would then mean that a country could purchase in the countries with the lowest prices (in clearing rubles). Since the Soviet Union, in particular, is generally reported to charge high prices for its exports, it would then be forced to reduce either its imports from the satellites, or its export prices if it wished to retain a trade balance.[11]

The absence of a corrective mechanism is stressed by Soviet bloc writers, who emphasize that the movement of goods in international trade is independent of price and exchange rate changes,[12] so that even if the authorities were to permit these to change, the flow of goods would be unaffected. If changes in price reflecting changed demand or

[10] An enterprise or organization selling to a foreign enterprise or organization within the Soviet bloc draws a draft on the foreign importer, deposits the draft in the bank, which extends an advance to the exporter while the draft is in process. (Petkov, "International Settlements," *Finansy i Kredit* (Sofiya), No. 3-4, 1951, pp. 55-60; Polyakov and Trubenkov, *op. cit.*, p. 28.) This procedure is the same as that used in internal transactions and suggests either that the exporter receives the same price that prevails internally, or that the export price is derived by some simple and automatic adjustment to the internal price. The available information suggests that the skulduggery which takes place in intrabloc trade is macroeconomic rather than microeconomic, so that manipulation of the prices in individual transactions has probably been unnecessary since the early postwar period, before the consolidation of Soviet power over the satellite governments. In any case, explicit multiple-rate practices seem not to be used in the Soviet bloc.

[11] In addition, agreements have been reached on standard freight rates on all trade within the bloc. (Klochek and Viryasov, "Economic Collaboration of the Countries in the Camp of Socialism," *Vneshnyaya Torgovlya,* 1952, XXII, No. 2, 8.) The agreement was concluded in November 1951. Petkov (*op. cit.*, p. 44), says that rates are quoted in rubles, suggesting that payments for freight are automatically included in the bilateral clearing accounts. There is also a set of terms for contracts in international trade. (Cheklin and Korolenko, "Economic and Trading Treaties and Agreements of the USSR with the People's Democracies," *Vneshnyaya Torgovlya,* 1951, XXI, No. 11, 22-23.

[12] "Exchange rates have no influence on internal prices, and internal prices have no effect upon the exchange rate (or parity). The consequence of subordinating the prices of imported goods as well as the prices of exported goods to economic plans is that the influence of the exchange rate and foreign prices upon internal prices disappears. . . . Since socialist money is not a means of international payments and since the exchange rate has no effect on commodity imports and exports or on the level of internal prices, the relation between the exchange rate and internal prices is completely broken, and there is therefore no connection between the balance of payments and the value of socialist money. Even if a socialist country were permitted in its plan for foreign trade turnover to accumulate a passive balance of payments which would be settled in gold and foreign exchange reserves this would have no effect on the value of its own money." Alfred Siebeneichen, *op. cit.*, p. 119.

supply were to occur, they would tend to lead to new equilibrium, as the theory of international trade tells us. However, prices do not in general react to changes in market conditions in Soviet-type economies. The participants in clearing agreements have an interest in obtaining as high prices (in clearing rubles) as possible for their exports, or as low prices (in clearing rubles) as possible for their imports.[13] They also have an interest in maintaining a debtor position. Such a trade deficit might indeed lead to a reduction in the country's holdings of foreign exchange (mainly clearing rubles), but, by increasing internal availability of goods, it would facilitate the execution of internal plans. In monetary terms, the deficit would increase budgetary funds in relation to the money supply, as imported goods were sold to domestic enterprises; and the execution of budgetary programs, which are the heart of Soviet bloc construction plans, would therefore be facilitated.

II. *Planning the Volume of Imports and Exports*

Imports and exports of each commodity, as fixed in the commodity lists in the bilateral trade agreements are commitments to buy and sell, and not simply to license trade. On the other hand, the foreign trade authorities must buy goods destined for export and sell goods of foreign origin within their own country. Both as commitments to foreign countries and as internal transactions, imports and exports become part of the economic plans of the trading countries.

Foreign-trade planning has been gradually developed since about 1949. Long-term trade agreements were first negotiated in 1948 between the USSR and its satellites, coinciding roughly with the establishment of satellite long-term economic plans.[14] A "Council for Economic Mutual Assistance" (CEMA) was established in January 1949.[15] An

[13] "In clearing agreements one of the countries may receive credit. To the extent that it can do so the debtor country is in a favorable position, since it can make payments in goods little needed by the creditor country. In clearing agreements, exchange rates are fixed. When one of the countries (for instance, Fascist Germany) succeeds in raising the rate on its currency, it thereby has the economic power to purchase additional goods offered by other countries. Its aim in so doing will be to raise imports in relation to exports thereby bringing in goods purchased from the contracting country at low prices." Petkov, *op. cit.*, p. 54. The reference to "Fascist Germany" is probably "insurance" by the author, so that he will not be accused of imputing evil designs to the USSR, which had appreciated its currency in March 1950. In the Soviet bloc context, "raising the rate on currency" means raising the clearing-ruble prices of exports.

[14] Long-run plans prepared as late as the Czech Five-Year Plan (August 1948), however, contained no serious consideration of foreign trade problems.

[15] Soviet bloc economic literature mentions the Council regularly, but gives no idea of its structure and functions. From the literature cited in this article, a guess might be made that CEMA administers the international features of the allocations system of the bloc. CEMA, however, deserves, in this article, at least the passing mention it receives in the bloc. In economic terms, of course, it does not matter whether CEMA or some other body makes the arrangements necessary to international allocations.

important revision of Soviet trade policy formulated by the Soviet Minister of Foreign Trade in late 1949 said that:

> . . . there has been a change in the function of the [Soviet] foreign trade monopoly in its dealings with the people's democracies. It does not have the function of defending the Soviet economy, but is a means for a planned binding together of the Soviet economy with the economies of the people's democracies.[16]

The coordination of satellite foreign trade and economic planning required a complicated reorganization of their internal distribution systems:[17] (1) wholesale trade was nationalized by the end of 1949; (2) at first, there was a variety of wholesaling organizations, some of them handling many commodities, and most subordinated to Ministries of Internal Trade; (3) beginning about 1950 allocations plans (in Soviet bloc terminology "materials balances")[18] began to be prepared; (4) wholesaling functions were later transferred to specialized supply and sales administrations of production Ministries; and (5) special units to plan and supervise the Ministerial distribution systems were established in 1951-1952 under the jurisdiction of the satellite cabinets.[19]

The satellite wholesale distribution systems thus came to resemble that of the Soviet Union, where a flow chart ("materials balance")

[16] Mikoyan, "The Great Architect of Communism," in *Vneshnyaya Torgovlya*, 1949, XIX, No. 12, 143. The formulation given here has recurred in Soviet literature since that time. A Czech article, published in later 1949 emphasized the subject of over-all Bloc planning: "Economic cooperation of the (CEMA) members . . . is not limited to the exchange of goods. . . . These countries *will offer* far-reaching technical aid in all branches of the economy, *will coordinate* their economic plans, establish a joint investment program, begin joint output programs, coordinate industrial output, all from the point of view of *setting up a division of productive forces* according to the requirements of the country and its natural and historical conditions." Pitra, "Economic Collaboration," *Planovane Hospodarstvi*, 1949, II, No. 6, 143 (italics added). Soviet bloc literature before the end of 1949 says only that trade *aids in* the fulfillment of individual national plans.

[17] The writer has omitted, for reasons of brevity, a chronology of the process in Czechoslovakia, East Germany and Poland, which he is prepared to provide on request. The Rumanian materials-balance system is described by Moldoveanu, "Some Problems of Planning and Material-Technical Supply in the National Economy," *Probleme Economice*, V, No. 6-7, 1952.

[18] In what follows, the word "material" will be used in the sense in which it is used in Soviet bloc economic literature. A material may be a raw material (cotton), fuel (coal), building material (cement), semifabricated goods (pipe, structural steel, wire, etc.), or even finished goods (boilers, electric motors). The important features about a material are that it is homogeneous, produced in large numbers, and is used by a considerable variety of users, or for a considerable number of purposes.

[19] In the USSR the corresponding agency from mid-1948 until March 1953 was *Gossnab*, the State Committee on Material-Technical Supply. Since the latter date, there has been some reorganization of the wholesaling system, and *Gossnab* was abolished and its functions transferred to the State Planning Committee. Details are not yet available as to the importance of these administrative readjustments.

indicates the sources from which and the amounts in which each user is supposed to obtain his supply of each allocated material. The materials balances are plans, which are implemented by supply and sales organizations in each producing ministry. Among the participants in these transactions are import and export agencies of the Ministry of Foreign Trade. Wholesalers usually act as brokers, instructing plants to make deliveries, but sometimes they purchase on their own account, or simply review the plants' orders to make sure that the allocations plan is being observed.[20]

To prepare such a flow chart, it is necessary to have a means for determining the amount of materials which a given plant "should" obtain. Under Soviet practice, coefficients relate output of particular plants to inputs of particular materials, and the system is, in this sense an "input-output" approach to allocations.[21]

Soviet bloc writers claim that the materials-balance system is an unambiguous method of measuring import requirements or export availabilities. If there were in fact a unique linear relation between output and materials requirements in each industry, a comparison of the output plans of the finished-goods industries with the industries supplying them with materials would make it possible to determine, by simple arithmetic, the country's surplus or deficit in these materials.

Alternatively, the output of finished goods, and the amount of imports and exports of various materials could be planned for given levels of materials output. At some set of clearing-ruble prices, it would then be possible to determine the level of materials output for which foreign trade, valued in clearing rubles, would balance. Finally materials output and a foreign-trade-balance requirement could be used to fix the output plan for finished goods.

Needless to say, the materials-balance system will be successful only to the extent that output plans are fulfilled, and that the distribution of this ouput proceeds along lines laid down by the balance. In fact, of course, deviations from plan as well as changes in plans themselves disrupt the smoothly functioning system just described. The following

[20] This system is not to be confused with the wholesale operations conducted by the Ministries of Internal Trade of the various countries. These purchase consumer goods from the wholesale organizations of producing ministries, and resell them to the retail network. The materials allocations system, in contrast, relates to capital-goods industries, and to the procurement functions of consumer-goods industries.

[21] It differs, however, in two respects, from that used in the United States (*e.g.*, W. W. Leontief's *Structure of the American Economy*, Cambridge, 1941). First, it is based upon engineering data designed for optimum conditions in a given plant, rather than upon average performance data on an industry-wide basis. Second, it does not necessarily suppose that there is a price equilibrium for the economy as a whole, whereas the Leontief system was originally designed to indicate a unique relationship (of the Walrasian type) between the prices and the quantities produced in a market economy.

section will endeavor to provide some economic explanations of the actual discrepancies which may exist between plan and reality.

III. *Critique of the Materials-Balance System*

Economists outside the Soviet bloc will conclude that the materials-balance system is probably not "efficient," *i.e.,* the Soviet bloc countries could increase their productivity, on existing resources, by using comparative advantage criteria, rather than input-output criteria to determine their trade programs. Under the materials-balance system, an importing country may pay more (or less) for its imports than it would if it increased its internal production; there will be no necessary tendency toward equalization of internal and import prices (except in the trivial sense that taxation and subsidies may equalize them), so that there will be no necessary tendency for countries to specialize in producing those types of goods for which they have a comparative advantage. These considerations will be familiar to readers of this article, and no great emphasis need be put upon them.

Instead, discussion will center upon three technical questions which are left unanswered by the materials-balance system: (1) how can the total trade, as fixed by materials-balance methods, be allocated among individual trading partners; (2) how can countries select the industries which will be developed for export purposes (or to decrease import requirements); and (3) what limitations have been found to the application of input-output coefficients in economic planning?

In view of the absence of statistical information, the answers to these questions can only be given in the form of theoretical hypotheses developed by the application of *ceteris paribus* assumptions to an institutional structure to which such methods have rarely been applied. The two major assumptions are: (1) that producing and distributive enterprises, although state-owned, may be treated within certain limits as decision-making economic entities; and (2) that operations of the fiscal, monetary and administrative control agencies in Soviet-type economies are not necessarily mutually consistent, and do not necessarily lead to the achievement of government aims. The resulting hypotheses, as is so often the case, may justly be criticized as oversimplifications of complicated economic processes. They are nevertheless tentatively advanced since they do appear to provide a connecting link between generally observable phenomena of repressed inflation, on the one hand, and difficulties in the enforcement of direct controls (including those over foreign trade) on the other, which Soviet bloc authorities have lamented in their press.

1. The materials-balance system cannot allocate trade among individual trading partners, as it determines only total imports and exports.

The regional allocation of trade within the bloc is based mainly upon the political and economic dominance of the USSR. Politically, the satellites give first priority to trade with the USSR, and second priority to trade among themselves, leaving East-West trade as of least importance. This priority scheme has important economic consequences. The USSR becomes the sole exporter of many important commodities, ranging from raw materials such as cotton, iron ore, manganese ore, etc., through heavy industrial equipment such as blast furnace and rolling mill equipment. In some cases, such as bauxite and petroleum, the USSR controls the bloc supply through its joint ownership of satellite productive supply (in Rumania and Hungary and formerly East Germany). In other cases, a single satellite will be the only country with an exportable surplus (Polish coal, Czech locomotives, etc.). For a considerable range of products, therefore, there is only one bloc exporter. Given the low desirability of East-West trade in the eyes of Soviet bloc authorities, the existence of a single supplier of many commodities means a virtual monopoly over the Soviet bloc supply.

The bilateral trading system reinforces the Soviet monopoly in many materials. Some features of this system have been easy to trace, as the importance of this trade has increased. The contents of trade agreements seem to be determined unilaterally by the Soviets, and export obligations to the USSR receive high priority in the satellites. New industries have been created and existing industries diverted to meet Soviet contracts. Soviet purchases also furnish a pretext for the presence of large economic missions in the Soviet embassies and Soviet advisors and inspectors in satellite industry collecting economic data and exercising varying degrees of influence on production processes.

The trading system also involves more subtle controls. Soviet literature stresses (1) bilateral balancing; (2) satellite dependence upon the USSR; (3) integration of trading agreements with satellite long-run plans; and (4) rigid scheduling of deliveries under the clearing agreements.[22] The Soviet Union ships mainly raw materials and capital goods to the satellites, receiving in exchange mainly finished goods other than capital goods. Since the satellites depend on the USSR for many materials, the greater their own output and investment the greater must be their imports from the USSR. If the Soviet Union falls behind in its deliveries, output and investment in the satellites must drop below plan or may even decline. Equally important, satellite shipments to the USSR will drop as satellite output drops, since satellite exports are in part processed Soviet materials. The Soviet Union, by selectively

[22] Ivanov, "The Development of the Economies and Foreign Trade of the People's Democracies," *Vneshnyaya Torgovlya*, 1949, XIX, No. 10, 6; Klochek and Viryasov, *op. cit.*, p. 5. Paromov, *op. cit.*, p. 38.

cutting down its deliveries of particular materials to the satellites could selectively restrict satellite output without building up any substantial payments deficit. Soviet output, on the other hand, would not suffer, since it does not depend to any great extent on imported materials.

Should a satellite fall behind in its deliveries, the USSR may threaten to suspend shipments of raw materials as a practical means of forcing compliance. Since the satellites probably have small reserves of Free World exchange, and since their own raw materials supplies are limited, a failure of the USSR to make deliveries might mean a nonfulfillment of satellite plans. Such a failure is an important internal political matter. Foreign trade as well as domestic planning authorities must therefore adjust themselves to current deliveries of the USSR.

2. The materials-balance system will not in itself provide an answer to planners deciding which industries to develop for export or import-replacing purposes. It will, in principle, permit a country to determine its imports or exports given a particular productive structure, but it will not indicate the sectors of the economy where investment should be concentrated.

To some extent, capital movements have served as a means of directing the investment programs of the individual bloc countries. In the past, reparations schedules have probably been of considerable importance in determining the course of industrialization in East Germany, Hungary and Rumania. Since reparations were in kind, and since commodity lists were specified, the USSR could effectively control the course of development of these countries by specifying the reparations schedules. Hungarian reparations payments stopped in early 1953, and East German payments at the end of that year. Rumanian payments will probably soon be completed.

These same countries have also been subject to direct Soviet intervention through Soviet ownership and domination of industrial corporations in these countries. The expansion programs of the important industries monopolized by these corporations are thus under direct Soviet supervision. There has been considerable reduction, however, in Soviet interests abroad in recent years, so that this element of direct control over investment is decreasing in importance.

At present, the principal form of international capital movement within the bloc is the medium-term loan program of the USSR, and to a minor extent that of Czechoslovakia. These loans in both cases are typically granted on a project basis in order to finance the purchase of specified lists of equipment (the construction work itself being ordinarily financed in the local currency).[23] The loan terms ordinarily

[23] They should not be confused with gold loans granted in the immediate postwar period to enable the satellites (especially Poland) to make purchases in the Free World.

specify that repayment is to be made from the output of the finished plant. The terms thus suggest that the loans are made in cases where the plant is being built mainly to satisfy Soviet materials requirements rather than those of the borrower. If so, the conclusion could be drawn that the loans represent direct Soviet intervention on behalf of projects which would not normally be of high economic priority for the borrower. In this sense, the loans would be a form of Soviet control over the direction of satellite industrialization as well as over its magnitude.

However, it is not yet possible to determine whether any economic mechanism comparable to the materials-balance system now coordinates (in theory or in practice) the investment programs of the satellites. It is known, of course, that within the USSR investment decisions are certainly not made on the basis of any overt marginal considerations,[24] and it must be presumed that the same is true of the satellites. To some extent balances of particular items of equipment can have an effect on construction plans, but this effect must probably be relatively small. There is no clear evidence suggesting economic mechanisms coordinating investment programs. In this sense, the bloc cannot be considered as an economic system; it must be coordinated by political agreements.

3. The limitations to the materials-balance system can best be seen in financial terms. These may be first considered at the level of the individual Soviet bloc enterprise.[25]

The allocations system deals with the receipt of raw materials by a plant, and the distribution of the finished goods of a plant. It does not control the flow of materials within the plant. A plant wishing to circumvent the allocations program will try to keep both finished-goods and materials inventories small relative to goods in process. Since an increase in goods in process is a part of the gross output of the plant, such a policy does not interefere with the completion of the output plan, although it will of course tend to hold deliveries of finished goods below plan.

The plant has several incentives to carry out such a manipulation. If it anticipates a shortage of a particular material, it can hoard it as goods in process, while maintaining purchases at a high rate so that there will be some slack in the event of unforeseen shortages in deliveries.

[24] See Gregory Grossman's authoritative study of the discussions of Soviet economists on this subject, "Scarce Capital and Soviet Doctrine," *Quart. Jour. Econ.*, Aug. 1953, LXVII, 311.

[25] The relation between credit and allocations policy is ordinarily recognized in works dealing with credit policy, but not in works dealing with materials balancing. An example may be found by a comparison of the Czech articles on allocations cited in footnote 27 with the article by Okrouhly on short-term credit in *Planovane Hospodarstvi*, VI, No. 2, 1953.

Similarly, the plant may maintain large inventories of almost finished goods so that if pressure is placed upon it to increase deliveries, it can do so within a short period by finishing these goods, rather than by actual new production. The "goods in process" inventory is thus, from the viewpoint of plant administrations, insurance against unexpected shortages and demands by the authorities.

Suppose, however, that the plant is producing at a constant rate, and cannot increase the total volume of its inventories because of a credit restriction. In this case, the plant's purchases of materials might seem to be closely related to its output, since total inventories are not varied. However, this is certainly not true in the short run. The plant could, for instance, run down its goods in process, so as to produce finished goods without using any materials at all; or it could use large amounts of materials by building up its goods in process without actually transferring anything to the finished-goods or goods-shipped accounts.

If, on the other hand, the plant is increasing its output, it will usually receive authorization to increase its inventories, too, so as to permit uninterrupted production. In order to increase inventories, its purchases of materials must increase more than its output, at least for a time. Similarly, if output is decreasing, materials purchases should drop more than output. In other words, a simple linear input-output assumption will not necessarily yield the practical results which planning authorities want, and will probably not do so in the short run.[26]

It is clear from the long and tedious literature on the "scientific" determination of norms that the lack of incentive on the part of plant managers and the ambiguity of the term "output" have made it difficult to obtain adequate norms for materials requirements at the plant level.[27]

[26] An illuminating discussion of the incentives of Soviet managerial personnel is given by Joseph Berliner, "The Informal Organization of the Soviet Firm," *Quart. Jour. Econ.* (Aug. 1952), LXVI, 342.

[27] Konstantinov, "Economic Planning in the European People's Democracies," *Planovoe Khozyaistvo*, No. 1, 1951, pp. 57-59, cites Czech and Polish deficiencies in setting up such norms; Shkarenkov, *op. cit.*, p. 70, indicates that a start had been made in establishing them during 1951; but Krylov, "Economic Planning in the European People's Democracies," *Planovoe Khozyaistvo*, No. 4, 1952, pp. 74-75, implies continuing difficulties in setting up adequate norms in Poland, Hungary and Bulgaria. More recently, the state of the norms was attacked in *Czechoslovakia* (Moravec and Horalek, "The New Method of Preparing the Plan for Material-Technical Supply," *Planovane Hospodarstvi*, VI, No. 7-8, 1953; Krazan, "Some Remarks on the Organization of Material-Technical Supply, *Planovane Hospodarstvi*, VI, No. 9-10, 1953; and the decree of September 8, 1953 on improving the allocations system in this latter issue); *East Germany* (see numerous speeches of Vice-Premier Rau, notably on October 31, 1951 and February 6, 1952 to the People's Chamber, and on May 16, 1953 to the Central Committee of the Socialist Unity Party); *Poland* (see the speech of Prime Minister Bierut of June 14-15, 1952 to the Central Committee of the Polish Communist Party); and *Rumania* (Moldoveanu, *op. cit.*).

IV. *Credit and Money in Relation to Foreign Trade*

From an aggregative point of view, the allocations system will not always ensure the execution of export plans.[28] This failure cannot be ascribed (as in other countries) to a lack of demand by trading partners, since trade agreements are firm commitments to purchase. Nor can it be ascribed to nonfulfillment of over-all industrial plans, since total industrial output (which, as noted, may differ from completion of finished goods) has generally been close to targets. Rather it seems to result from too great internal absorption of goods by exporting countries, so that export authorities cannot obtain goods for export, in spite of the materials-balance plan.

Not all failures of export plans can be explained in this way. Exports of unprocessed agricultural products have undoubtedly been affected by the alternation of good and bad harvests in Danubian countries in recent years. Exports of individual commodities may be affected by various special problems.[29] However, there are cases of general underexporting apparently because of excessive internal demand. Since prices cannot vary, changes in demand must lead to shortages or unsalable stocks; and indeed, despite steady increases in satellite industrial output there have been clear tendencies toward persistent shortages in all of these countries.

To a considerable extent the materials-balance system was established in response to internal distribution problems. The literature on it stresses the need for reducing materials consumption. However, these consumption and distribution difficulties also coincided with excessive credit expansion,[30] when enterprises buy or hold more inventories than they "should"; and when everyone, including the exporting authorities, has trouble purchasing planned amounts of goods.

A decrease in exports resulting from an internal credit inflation will probably not lead to an adverse balance of trade, since the amount of a

[28] For example, during 1953, Hungarian export performance was repeatedly criticized (*Szabad Nep*, February 7, June 2, June 10, December 29; *Nepszava*, February 20, April 13, September 23, October 7; *Esti Budapest*, September 16, October 29). In early 1953, Czechoslovakia had similar difficulties (see speech of Deputy Minister of Foreign Trade Kocour, February 28, 1953, and *Neue Zuericher Zeitung*, February 10, 1953).

[29] For instance, a factory producing many products measures its gross output (and hence plan fulfillment) on the basis of a set of price weights differing from its current costs or selling prices. It may then complete its output plan by concentrating its efforts on a few items weighted heavily in the output index, at the expense of others.

[30] Excessive credit expansion was under attack in Czechoslovakia (Okrouhly, *op. cit.*) and Hungary (*Szabad Nep*, April 7, 9, 10, August 3; *Nepszava*, April 13, August 4, 1953) at the same time that the export difficulties mentioned above were being aired. It has been a persistent problem in the satellites generally (see the writer's "Soviet Bloc Currency Conversions," *Am. Econ. Rev.*, June 1954, XLIV, 339-54.

country's imports is limited by the amount of its exports and the size of the swing credits provided for in the trade agreements. If for no other reason, there will not be the standard corrective mechanism of reserve outflow and credit contraction observable in pure gold standard conditions. On the other hand, under certain conditions, international transactions could be a brake on credit inflation. If, for instance, a drop in exports resulting from credit inflation means a drop in materials imports, enterprises may have to reduce inventories as a means of keeping output rates at planned levels. The practical importance of this possibility cannot be judged at this distance.

In any case, there are both theoretical and empirical grounds for asserting that under Soviet bloc conditions credit expansion may prevent completion of export plans despite the existence of elaborate direct controls.

Capital movements and transfers, and also the absence of a single set of prices in the Soviet bloc trading area have important consequences upon internal transactions of a Soviet bloc country. Thus, international trade has an active, as well as a passive role to play in the economy of these countries.

Capital movements—both transfers such as reparations or the Soviet share in the profits of joint corporations and transactions arising from loans—are of course the offsetting items to export or import surpluses.[31] In the main they are planned, but of course the failure of a country to complete its deliveries under bilateral trade agreements will mean an unplanned credit balance and capital export by its partners. These unplanned credits may have to be funded at the end of the year if the reasons for the trade imbalance have not been corrected, and they will therefore enter into later financial plans.

The planned capital movements seem typically to be intergovernmental agreements, and they will therefore be items of government income (expenditure) for countries with capital imports (exports). To the extent that the government attempts to balance its budget without recourse to borrowing from the central bank, a change in capital movements will affect the government's other spending and taxes. If, on the other hand, the government allows the international capital movement to be offset by changes in bank credit, the effects will presumably be of the sort indicated in the discussion of bank credit given above, with capital exports accentuating, and capital imports relieving scarcities within the economy. This aspect of Soviet bloc finance is formally the same as that in other countries.

[31] The export or import surpluses being defined in rubles, the local currency equivalent will vary with the exchange rate. The writer has attempted an analysis of Soviet bloc exchange rates in *Rev. Econ. Stat.*, Nov. 1953, XXXV, 337-42.

Since the local-currency equivalent of clearing-ruble prices does not necessarily equal the internal price,[32] an internal financial subsidy to or profit from foreign trade operations may arise. An export surplus in the clearing accounts established under trade agreements should not necessarily be taken to mean that the value of the country's exports exceeds that of its imports, when these are valued at internal prices. It is theoretically possible, in fact, for a country to be exporting (importing) capital because of a planned export (import) surplus in the clearing accounts at a time when the Ministry of Foreign Trade has a surplus (deficit) in its dealings with domestic enterprises because the value, in internal prices, of imported goods is greater (less) than the value of exported goods.

If clearing-ruble prices were the same as internal prices, the Ministry of Foreign Trade of a Soviet bloc country would have no profit or loss (apart from office expenses), since it would buy and sell internally and abroad at the same set of prices. However, it will presumably have a profit or loss since these sets of prices may differ. The amount of this profit or loss will depend upon the exchange rate, upon the nature and amount of the differences between internal and international prices, and upon the volume of trade.

The profit or loss of the Ministry must presumably be offset either by budgetary funds or changes in central bank credit to the Ministry. The consequences of these two possible methods of financing are the same, of course, as those discussed in connection with capital movements.

Foreign trade operations, then, will affect the amount of money held by individuals and enterprises who buy imported goods and sell exported goods. If there is an export (import) surplus (when goods are valued at domestic prices), foreign trade will add to (subtract from) their monetary resources, and will thus affect purchasing power and current demand. The budgetary and banking authorities will wish to add to, or offset this change, depending upon the capital movements and price distortions going on simultaneously, and upon the perspicacity of their budgetary and credit policies. These decisions will determine the effect which a particular trade program has upon the money supply. The size of the money supply will in turn help determine whether the amount of goods currently being produced will be distributed according to plan, or whether gluts or shortages will take place. It will also help determine whether the trade program itself will be realized.

[32] As noted above, there is some reason to think that each bloc country receives the clearing-ruble equivalent of its domestic prices on its exports, and pays the equivalent of its partners' domestic prices on its imports. If this is true, the following discussion could be somewhat simplified, for it is assumed here that neither imports nor exports are valued at internal prices.

Conclusions

The Soviet bloc countries differ from others in that there is no tendency in any country for the price of any one commodity to change when the demand for or supply of that commodity, or the price of other commodities, at home or abroad changes. Changes in price are the result of administrative decisions, and do not in any direct way reflect changes in economic conditions. Although prices play a very different role, therefore, than they do in other countries, the Soviet bloc has since 1949 been moving in the direction of becoming an international economic system having sufficiently clearly defined characteristics to permit some preliminary generalizations:

1. There is some division of labor within the Soviet bloc. A country's imports and exports, however, do not necessarily depend upon its comparative advantage or upon an equilibrium of demand and supply brought about by price adjustments. Instead, they depend upon an assumed invariant relation between output of each plant and input requirements and upon the results of bilateral negotiation between monopolistic trading organizations of unequal bargaining power.

2. The imports and exports of each commodity in any one country, under this assumption, affects and is affected by the production of other commodities in all bloc countries. Owing to the relatively small dependence of the USSR and to the relatively great dependence of the satellites on imported materials, the USSR could, without invoking party or police discipline (an economic *deus ex machina*), influence satellite internal affairs by manipulating its own foreign trade.

3. Imports and exports, in practice, will only be at planned levels if internal demand and availabilities are at planned levels. Consequently, increases in internal demand and decreases in internal availabilities of the kind brought about by unplanned credit expansion can affect foreign trade, even though the allocations system in theory should prevent such effects.

a. In a technical sense the weakness of the allocations system is that a linear input-output system is very difficult to administer. What seems to be an unambiguous relationship turns out not to be, largely because output, as a flow, tends in practice to be related to inventory, which is a stock. The Soviet bloc authorities seem not to have solved the problem of relating the two concepts in any very satisfactory way.

b. Even if the materials-balance system were adequate to control imports and exports at any particular moment, it would not determine the allocation of resources going into investment in import-requiring or exporting industries. The system thus provides at best a short-run equilibrium, with longer-run stability subject to investment decisions made without reference to it.

c. In an economic sense, the weakness of the allocations system has been that the allocations authorities have not recognized the extent to which the success of their operations depended upon successful credit controls.

4. The foreign trade program affects the budgetary and credit operations of Soviet bloc governments, which finance capital movements and must absorb profits or losses arising from the difference between internal and foreign prices. The trade program, together with the methods of financing used, influences the money supply, and therefore affects the demand for goods internally, relative to existing supply.

EFFECTS OF EXCHANGE RATE ADJUSTMENTS ON THE STANDARD OF LIVING

By WARREN L. SMITH*

The analysis presented herein was inspired by Professor Haberler's suggestive comments concerning the "burdens" of eliminating a substantial balance-of-payments deficit by an appropriate adjustment of the exchange rate.[1] In connection with his argument that if exchange rates were set free to find their equilibrium levels and countries pursued internal stabilization policies, balances of payments would be quickly equilibrated without great changes in the terms of trade, Haberler refers to the "burdens" of such adjustments. He refers to a primary burden, which arises from the fact that an import surplus provides a country with a net amount of goods available for domestic use in excess of its own production. If we use the term standard of living to refer to the real amount of goods available for domestic use (including consumption, investment, and the provision of government services), the primary burden will be a reduction in the standard of living by an amount equal to the real deficit in the balance of payments. However, the depreciation[2] of the exchange that would be involved in adjusting the balance of payments would ordinarily affect the country's terms of trade, and this change in the terms of trade would also affect the country's standard of living. Exchange depreciation may either worsen or improve a country's terms of trade. If it worsens the terms of trade, there will be a secondary burden in terms of reduced standard of living to be added to the primary burden mentioned above. On the other hand, if depreciation improves the terms of trade, there will be a secondary benefit which will at least partially offset the primary burden.

These ideas can perhaps be made clearer by means of a simple numer-

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[1] G. Haberler, "Reflections on the Future of the Bretton Woods System," *Am. Econ. Rev. Papers and Proceedings*, May 1953, XLII, 84–87.

[2] In the case to which Haberler refers, an improvement in the trade balance would necessarily involve a depreciation of the currency, since he explicitly assumes that the conditions of stability in the foreign exchange market are satisfied, so that a freely fluctuating rate can be employed. If the stability conditions are not fulfilled, a freely fluctuating rate could not be employed, and governmental pegging of the exchange would be necessary. However, in this case, adjustments in the pegged rate could be used, as envisaged under the International Monetary Fund, to adjust the balance of payments, with appreciation of the currency being required to eliminate a deficit. Both stable and unstable markets will be considered in our analysis.

TABLE I.—ILLUSTRATIVE CASES SHOWING BURDENS RESULTING FROM ELIMINATION OF A BALANCE OF PAYMENTS DEFICIT

	Initial Position	Case I	Case II	Case III	Case IV	Case V
Y	100	100	100	100	100	100
E	105	100	97	103	105	108
X	10	12	14	11	10	8
M	15	12	11	14	15	16
B	−5	0	0	0	0	0
T	1.00	1.00	0.79	1.27	1.50	2.00
Primary burden-deficit in real terms		5	5	5	5	5
Secondary burden (+) or benefit (−) resulting from change in terms of trade		0	3	−2	−5	−8
Net burden (+) or benefit (−)		5	8	3	0	−3

ical illustration. Suppose a country's initial position is as shown in the first column of Table I. Here Y is national product or income, E is domestic consumption plus investment plus government expenditures on goods and services (the standard of living), X is exports, M is imports, B is the trade balance, and T the terms of trade. Y, E, X, and M are expressed in constant dollars throughout the table. The deficit of 5 permits the country to have the use of 105 of goods while producing only 100. Suppose now that an appropriate adjustment in the rate of exchange eliminates the balance-of-payments deficit. We assume that full employment prevails initially and that the elimination of the deficit is accompanied by appropriate domestic monetary and fiscal policies which succeed in preserving full employment. For simplicity we shall assume, for the moment, that the preservation of full employment means that national product valued in constant dollars (Y) remains unchanged.

The last five columns indicate several possible outcomes of an adjustment of the exchange rate sufficient to eliminate the deficit in the balance of payments. The outcomes differ with respect to the terms of trade (T),[3] and there are accompanying differences in the amount of goods available for domestic use (E).

[3] In Case I, the terms of trade are unchanged from the initial situation, since the full adjustment occurs through changes in the physical volume of exports and imports (exports increased by 2, imports decreased by 3). In Cases II, III, IV, and V, since trade is balanced, so that $pX-qM=0$ (p being the export price level, q the import price level), the terms of trade can be computed from the expression $\frac{p}{q}=\frac{M}{X}$.

The costs for each of the possible outcomes are classified in the lower part of Table I to correspond with Haberler's distinction between primary and secondary effects. In Case I, the terms of trade do not change, so that the net burden is equal to the deficit. In Case II, the terms of trade worsen, and this imposes an additional burden. In Case III, the terms of trade improve, and this offsets part of the primary burden. In Case IV, the terms of trade improve sufficiently to offset exactly the primary burden (*i.e.*, no change in trade in real terms is necessary, the whole deficit being eliminated by price changes). In Case V, the terms of trade improve so much as to more than offset the primary burden so that the standard of living is higher than originally (*i.e.*, the deficit *in real terms*[4] is larger than it was initially).

Obviously, there are many possible outcomes. It is the purpose of this paper to explore the interrelations existing among the rate of exchange, the balance of payments, the terms of trade, and the standard of living to see which ones, if any, can be ruled out and to determine, in so far as possible, what conditions are likely to promote particular results.

I. *Effects of Exchange Rate Adjustments on Balance of Trade, Terms of Trade, and Standard of Living*

In our analysis, we will regard our country as producing two kinds of goods, products destined for domestic consumption (E') and products destined for export (X). Assuming full employment and fixed supplies of the factors of production, there will be a transformation function showing possible combinations of X and E' that can be produced:

$$E' = F(X).$$

Output of E' and X is measured in constant dollars. Additional constant increments of X require progressively greater reductions in E'; *i.e.*, X is produced subject to increasing marginal opportunity cost in terms of E'. If we assume perfect competition,[5] we have:

$$\frac{dE'}{dX} = F'(X) = -\frac{p_x}{p_e}\,.$$

If we designate the relative price of exports in terms of domestic goods by $p(p = p_x/p_e)$, we have:

$$p = -F'(X).$$

[4] *I.e.*, when exports and imports are valued in constant dollars.

[5] If monopoly is present in industries producing for domestic consumption, in the export industries, or in both, it can be taken into account by introducing coefficients of demand elasticity without affecting the essentials of our analysis.

This is our domestic supply function of exports.[6] If E is total goods available for domestic use, and M is imports, we have:

$$E = E' + M.$$

Hence,
$$E - M = F(X)$$

The complete model we will use in our analysis is as follows:

$$E - M = F(X) \tag{1}$$

$$p = -F'(X) \tag{2}$$

$$M = \phi_1(q) \tag{3}$$

$$X = \phi_2(p') \tag{4}$$

$$M = f(q') \tag{5}$$

$$B = p'X - q'M \tag{6}$$

$$p = \pi p' \tag{7}$$

$$q = \pi q' \tag{8}$$

$$T = \frac{p}{q} \tag{9}$$

E = goods available for domestic use (the "standard of living") in constant dollars
M = imports in constant dollars
X = exports in constant dollars
p = domestic relative price of exports
p' = foreign relative price of exports
q = domestic relative price of imports
q' = foreign relative price of imports
B = balance of trade in terms of foreign currency
π = exchange rate (price of foreign currency in dollars)
T = terms of trade

Equations (3), (4), and (5) represent the domestic demand for imports, the foreign demand for exports, and the foreign supply of imports, respectively. The demand for imports is assumed to depend only on the

[6] If the types of goods a country exports are also consumed at home (as is ordinarily the case), the export supply function is the difference between the domestic supply of export goods and the domestic demand for such goods, and the elasticity of export supply is a weighted sum of the elasticity of domestic demand for export goods and the elasticity of supply of such goods. On this, see G. Haberler, "The Market for Foreign Exchange and the Stability of the Balance of Payments," *Kyklos* (1949), III, 193–218, esp. 207–10; and G. H. Orcutt, "Measurement of Price Elasticities in International Trade," *Rev. Econ. Stat.*, May 1950, XXXII, 117–132, esp. Appendix I, p. 127. This means, too, that our transformation function connecting E' and X reflects not only production possibilities but also demand conditions.

price level of imported goods relative to domestically produced goods.[7] Similarly, the foreign demand for exports and the foreign supply of imports are assumed to depend only on the foreign relative prices of these goods.[8]

The reader may be uneasy about the failure to include domestic real income as a determinant of the demand for imports and foreign real income as a determinant of the demand for exports. It is apparent that if an exchange rate adjustment causes changes in real income these may produce shifts in import and export demand which may significantly affect the variables we are interested in. It would not add greatly to the complexity of our problem to expand it into a two-country analysis (the "other country" representing the rest of the world). We could add two equations defining real national income in each country, valuing the components at prices prevailing before the exchange rate adjustment (*i.e.*, $Y=E+X-M$), and include real income as an additional variable in each country's import demand function. It would also be necessary to alter the model very slightly in order to make our treatment of the other country parallel precisely our handling of the home country. However, when we expand our model in this way, we find that exchange rate adjustments do not affect the level of income in either country.[9] Hence all terms involving income effects drop out of the analysis, and we are left with results precisely the same as those derived below. Of course, this does not mean that exchange rate adjustments do not have income effects.[10] It merely means that such effects do not show up in an analysis carried out at the level of abstraction that we are employing, and provides, in the writer's opinion, some basis for the view that they are not likely to be of primary importance.

In addition to their possible effects on the level of income, exchange

[7] By reasoning analogous to that noted in footnote 6, the domestic demand for imports (equation (3)) is the difference between the domestic demand for the types of goods imported and the domestic supply of these goods (to the extent that they can be produced at home), and the elasticity of demand for imports is a weighted sum of the domestic elasticities of demand for and supply of these goods. Similar statements hold concerning the foreign demand for exports and foreign supply of imports, though this matter does not concern us much here.

[8] We assume throughout that price levels at home and abroad remain constant, or change in the same proportion. If the domestic price level changes relative to the foreign price level, this is a substitute for an adjustment in the exchange rate—*i.e.*, a rise in foreign prices relative to home prices is equivalent to a depreciation of the exchange. Under a gold standard or other system of fixed exchange rates, π could be regarded as a multiplier relating domestic and foreign price levels. Changes in π would then represent relative domestic inflation or deflation.

[9] That is, $dY/d\pi=0$. It is worth noting that if, for either country, the average degree of monopoly prevailing in industries producing goods for home use differs from that prevailing in the export industries (see footnote 5, *supra*), the income of that country is affected by an exchange rate adjustment. We will not consider this possibility.

[10] For example, real income may be affected if the supplies of the factors of production, instead of being fixed as we are assuming, depend upon their prices, or if the concept of real income is refined to reflect welfare effects resulting from induced changes in the valuation of particular goods (see footnote 13, *infra*).

rate adjustments are certain to cause changes in the internal distribution of income, both in the country making the adjustment and in other countries. For example, an exchange depreciation which improves the balance of payments will increase the incomes of exporters and decrease the incomes of importers. If the magnitude of this effect is large and if these two groups have different income elasticities of demand for imports, the results of the depreciation may be significantly affected. Moreover, an exchange rate adjustment will ordinarily necessitate some domestic readjustments. For example, an exchange depreciation which improves the balance of payments necessitates the release of resources from the production of domestic consumption goods, investment goods, or government services in order that such resources may be used to produce additional goods for export or as substitutes for imports. Various combinations of monetary and fiscal measures may be employed to facilitate the release of resources, and the results of the exchange depreciation will depend to some degree upon which combination is chosen.[11] For instance, if most of the country's imports are wage goods, the effectiveness of the depreciation will be enhanced if the domestic measures taken to release the resources are such as to reduce primarily the incomes of the working class (*e.g.*, increase in lower-bracket income taxes).[12]

We will make no attempt to allow for differential effects arising from changes in income distribution caused by the exchange rate adjustment or by the domestic measures which accompany it. This amounts to an assumption that the income elasticity of demand for imports (both in the home country and abroad) is the same for all income groups. If income is significantly redistributed and if income elasticities differ appreciably, modifications in our analysis will be called for.

Our model contains nine equations and nine unknowns. We will treat the rate of exchange, π, as a variable that can be manipulated by the makers of foreign economic policy. We are interested in the effect of exchange rate adjustments on the balance of payments (B), the terms of trade (T), and the standard of living (E). Our procedure, then, is to differentiate all the equations of our model with respect to π and solve for $dB/d\pi$, $dT/d\pi$, and $dE/d\pi$. If we do this and translate our results into

[11] Some degree of inflation may also be utilized to bring about the release of resources by reducing the real incomes of those groups whose money incomes do not adjust to changes in the price level. However, to the extent that inflation results in a rise in the general price and cost structure of the economy, it will cancel the effects of the exchange depreciation and a greater degree of depreciation will be required than would have been necessary had steps been taken to prevent the price level from rising.

[12] An extensive discussion of the alternative domestic policies to accompany an exchange rate adjustment is outside the scope of the present paper. Such a discussion might well utilize the "income-absorption" approach suggested in S. S. Alexander, "Effects of a Devaluation on a Trade Balance," *Internat. Monetary Fund Staff Papers*, Apr. 1952, II, 263–78. Although Alexander recommends this approach as a substitute for the "elasticities approach" used in this paper, the writer is more inclined to regard the two approaches as complementary.

terms of elasticities of demand and supply, we obtain the following results:

$$dB = k\left(\frac{Xs_x(d_x - 1)}{s_x + d_x} + \frac{Md_m(s_m + 1)}{d_m + s_m}\right), \tag{10}$$

$$dT = k\left(\frac{d_m}{d_m + s_m} - \frac{s_x}{s_x + d_x}\right), \tag{11}$$

$$dE = -\ k\left(\frac{Xs_xd_x}{s_x + d_x} + \frac{Md_ms_m}{d_m + s_m}\right), \tag{12}$$

where:

d_x = elasticity of foreign demand for exports,
s_x = elasticity of domestic supply of exports,
d_m = elasticity of domestic demand for imports,
s_m = elasticity of foreign supply of imports,
$k = d\pi/\pi$ = change in exchange rate as a percentage of its initial value. ($k>0$ for exchange depreciation; $k<0$ for appreciation.)

In deriving these expressions, currency units are so defined that $\pi=1$ initially, and the initial situation is used as the base of the index numbers, so that $p=q=p'=q'=1$. The signs of the demand elasticities, which are algebraically negative, have been changed throughout this paper, and, with this modification, it will be assumed that all elasticities of demand and supply actually are positive (*i.e.*, that they lie between 0 and ∞).

These three expressions indicate the effect on the balance of trade, the terms of trade, and the standard of living[13] that will be produced by a change in the exchange rate in the proportion k of its original value. (10) is a familiar expression for the responsiveness of the balance of payments to a change in the exchange rate.[14] If this expression is positive,

[13] It should be noted once more that we are using the term "standard of living" as a shorthand expression for the volume of goods available for domestic use priced at the prices prevailing before the adjustment of the exchange rate. It is admittedly only an approximation (possibly a very rough one) to the welfare effects of the depreciation since it takes no account of the induced changes in the domestic valuation of different types of goods that occur when the quantities of them available are changed as a result of the depreciation. However, it is a reasonably objective, measurable magnitude which might be of considerable significance to policy makers, and this is our excuse for working with it rather than attempting to introduce some concept of welfare directly into the analysis.

[14] This expression is the same as that given in S. S. Alexander, "Devaluation Versus Import Restriction as an Instrument for Improving Foreign Trade Balance," *Internat. Monetary Fund Staff Papers*, Apr. 1951, I, 394. It differs from the relation shown in J. Robinson, "The Foreign Exchanges," in *Essays in the Theory of Employment*, 2d ed. (Oxford, 1947), pp. 134–55, reprinted in *Readings in the Theory of International Trade* (Philadelphia, 1949), pp. 83–103, because Mrs. Robinson's expression relates to the change in the trade balance in terms of domestic currency, whereas (10) relates to the change in the balance expressed in foreign cur-

exchange depreciation will improve the trade balance, and the foreign exchange market will be stable under a regime of freely fluctuating exchange rates. If it is negative, depreciation will worsen the trade balance,[15] and the foreign exchange market will be unstable under freely fluctuating rates.

Our chief purpose is to study the relations among these three expressions. But, before doing so, we shall attempt to summarize the chief properties of each taken separately. (10) and (12) can be rewritten in a slightly different form which will facilitate analysis:

$$dB = kX\left(\frac{s_x(d_x - 1)}{s_x + d_x} + \frac{d_m(s_m + 1)}{d_m + s_m}\right) - kB\,\frac{d_m(s_m + 1)}{d_m + s_m} \qquad (10')$$

$$dE = -\ kX\left(\frac{s_x d_x}{s_x + d_x} + \frac{d_m s_m}{d_m + s_m}\right) + kB\,\frac{d_m s_m}{d_m + s_m}\,. \qquad (12')$$

In connection with (10′), several points should be noted. Exchange depreciation must improve the trade balance unless foreign demand for exports is inelastic ($d_x<1$), since if foreign demand is elastic all three terms in (10′) are positive.[16] Even if foreign demand is inelastic, however, the balance of trade may improve if the domestic supply of exports is sufficiently inelastic and if the domestic elasticity of demand for imports and the foreign elasticity of supply of imports have appropriate values. The greater the elasticity of foreign demand for exports (d_x) and the elasticity of domestic demand for imports (d_m), the more favorable (or less unfavorable) is the effect of depreciation. On the supply side, an increased elasticity of domestic supply of exports (s_x) makes the effect of depreciation (a) more favorable if the elasticity of foreign demand (d_x) is greater than unity, and (b) less favorable if the elasticity of foreign demand is less than unity. Similarly, an increased foreign elasticity of supply of imports (s_m) is (a) favorable if domestic demand is

rency. Since a country with a balance of payments gap is interested in the size of the gap in terms of foreign currencies, the foreign-currency balance is more appropriate for our problem than the domestic-currency balance. The fact that the foreign-currency balance and the domestic-currency balance are differently affected by exchange rate adjustments is shown in A. O. Hirschman, "Devaluation and the Trade Balance: A Note," *Rev. Econ. Stat.*, Feb. 1949, XXXI, 50–53. For a careful discussion of all this, see also G. Haberler, "The Market for Foreign Exchange and the Stability of the Balance of Payments," *op. cit.*

[15] Appreciation will, of course, improve the trade balance under these conditions. But with a fluctuating rate, an import surplus will tend to cause the exchange to depreciate, thus making the deficit larger. Thus, the market is unstable and a fluctuating rate cannot be relied upon. Appreciation, when appropriate to deal with a deficit, can only be employed under some kind of controlled rate system such as a gold standard or through the intervention of a stabilization fund.

[16] Since we are considering exchange rate adjustment as a device for eliminating a trade deficit, we shall consistently assume in this part of the paper that $B<0$.

elastic, and (b) unfavorable if domestic demand is inelastic.[17] Finally, it is important to note that, given the elasticities of demand and supply, and if the domestic demand for imports is inelastic ($d_m < 1$) so that it is possible for depreciation to worsen the trade balance, the chance that this will occur becomes smaller the larger the deficit in the balance of payments. This is apparent from the last term of (10′). In other words, if domestic import demand is inelastic, depreciation might be helpful in reducing a large deficit but might make a small deficit larger.[18]

Turning to (11), the first thing to notice is that the effect of variations in the exchange rate on the terms of trade depends only on the configuration of the elasticities and is not affected directly by the size of exports, imports, or the trade balance. (11) can be rewritten as follows:

$$dT = k \frac{d_m d_x - s_m s_x}{(d_m + s_m)(s_x + d_x)} \cdot \qquad (11')$$

It is clear from this version that exchange depreciation will (a) improve the terms of trade if $d_m d_x > s_m s_x$, (b) leaves the terms of trade unchanged if $d_m d_x = s_m s_x$, and (c) worsen the terms of trade if $d_m d_x < s_m s_x$. That is, the direction of effect on the terms of trade depends entirely on whether or not the product of the demand elasticities exceeds the product of the supply elasticities. An increase in either demand elasticity always tends to make the effect of depreciation on the terms of trade more favorable (or less unfavorable), while an increase in either supply elasticity tends to make the effect less favorable (or more unfavorable).[19]

It can be seen from (12′) that exchange depreciation always reduces the standard of living, while appreciation always increases it.[20] Moreover, an increase in any of the elasticities of demand or supply always tends to make the effect on the standard of living greater. Finally, it is apparent from the final term of (12′) that, given the elasticities, the

[17] These statements can be derived analytically by differentiating expression (10) with respect to the various elasticities and observing the signs of the terms in the resulting expressions. This is done in M. Bronfenbrenner, "Mathematical Supplement" to P. T. Ellsworth, "Some Aspects of Exchange Rates," *Rev. Econ. Stat.*, Feb. 1950, XXXII, 12–16.

[18] Of course, there is no reason to expect that the elasticities would be the same with a large as with a small deficit. But there does not appear to be any reason, either, to expect the elasticities to bear any systematic relation to the size of the deficit.

[19] Expression (11) is the same as that given in G. Haberler, "Currency Depreciation and the Terms of Trade," in *Wirtschaftliche Entwicklung und soziale Ordnung*, ed. by Lagler and Messner (Vienna, 1952), p. 152. A similar expression is given in J. Robinson, "Beggar-My-Neighbor Remedies for Unemployment," *Essays in the Theory of Employment, op. cit.*, p. 163, n. 1, reprinted in *Readings in the Theory of International Trade, op. cit.*, p. 400, n. 17. Mrs. Robinson's expression differs from ours, because she defines the change in the terms of trade in a different way. An intensive analysis of the effects of exchange depreciation on the terms of trade is to be found in J. E. Meade, *The Balance of Payments* (New York, 1951), pp. 235–47.

[20] In the limiting case when both supply elasticities are zero, exchange rate adjustments leave the standard of living unaffected. This case is discussed later.

larger the existing deficit, the stronger is the tendency for depreciation to reduce the standard of living.

II. *Interrelations among Balance of Trade, Terms of Trade and Standard of Living*

A. *Trade Balanced Initially*

It will clarify the exposition if we begin with a consideration of a special, albeit an unrealistic, case—that in which trade is initially in balance. In this case the final terms in (10′) and (12′) disappear and our three expressions are:[21]

$$dB = kX\left(\frac{s_x(d_x - 1)}{s_x + d_x} + \frac{d_m(s_m + 1)}{d_m + s_m}\right), \tag{10''}$$

$$dT = k\left(\frac{d_m}{d_m + s_m} - \frac{s_x}{s_x + d_x}\right), \tag{11}$$

$$dB = -\ kX\left(\frac{s_x d_x}{s_x + d_x} + \frac{s_m d_m}{d_m + s_m}\right). \tag{12''}$$

In this special case, the relation among balance of trade, terms of trade, and standard of living can be expressed very simply:

$$\frac{dE}{d\pi} = -\frac{dB}{d\pi} + X\frac{dT}{d\pi}\cdot \tag{13}$$

That is, the change in the standard of living which results from an exchange rate adjustment is equal to (a) the change in the balance of trade that results, with sign reversed, plus (b) the change in the terms of trade weighted by the volume of exports (or imports) before the exchange adjustment.

In order to classify the possible results of an adjustment of the exchange rate, we may consider separately two basic situations: (1) cases in which the foreign exchange market is stable, and (2) cases in which the market is unstable.

1. *Stable foreign exchange market.* In this case, the expression (10″) is positive, that is, exchange depreciation improves the balance of trade. Since (12″) is *always* negative, exchange depreciation necessarily reduces living standards. Hence, with a stable foreign exchange market,

[21] In the special case in which trade is initially balanced, the effect of an exchange rate adjustment on the trade balance is the same whether the balance is expressed in foreign or domestic currency. Thus (10″) above is equal to the expression given in Robinson, *op. cit.*, when X is set equal to M in the latter expression. (See footnote 14 *supra*.) And both (10″) and Mrs. Robinson's expression are equivalent to that given in L. A. Metzler, "The Theory of International Trade," in H. S. Ellis (ed.), *A Survey of Contemporary Economics*, Vol. I (Philadelphia, 1948), p. 226. *Cf.*, Hirschman, *op. cit.*, p. 52.

an improvement in the balance of trade is always accompanied by a reduction in living standards. The terms of trade may worsen as the exchange depreciates and the balance of trade improves, thus adding to the burden on the standard of living. Or the terms of trade may improve and provide a benefit which partially (but not wholly) offsets the change in the balance of trade.

A few special cases shown in Table II serve to illustrate limiting cases. The first case (I), that in which supplies are both completely inelastic, illustrates the limiting case in which improvement in the terms of trade exactly "pays for" improvement in the balance of trade with no change in standard of living. This corresponds to Case IV in our original tabulation (p. 4). The next case (II), that where both supplies are infinitely elastic, is one in which a worsening of the terms of trade adds to the burden. In this case, stability requires that $d_x+d_m>1$. For example, if $d_x+d_m=2.5$, the improvement in the trade balance is $1.5kX$, the additional cost due to a worsening of the terms of trade is kX, and the standard of living is reduced by $2.5kX$. This corresponds to Case II in our original tabulation. The last two columns (III and IV), in which one supply is completely inelastic and the other fully elastic, illustrate cases in which the terms of trade are unaffected and the reduction in standard of living is equal to the improvement in the trade balance. These correspond to Case I in the original tabulation. Case V, in which improvement in the trade balance is accompanied by a rise in the standard of living cannot occur when the foreign exchange market is stable (*i.e.*, when exchange depreciation improves the balance of payments).

TABLE II.—EFFECTS OF EXCHANGE RATE ADJUSTMENTS FOR SPECIFIED ELASTICITIES OF SUPPLY WHEN TRADE IS INITIALLY BALANCED

	I	II	III	IV
	$s_x=0$ $s_m=0$	$s_x=\infty$ $s_m=\infty$	$s_x=\infty$ $s_m=0$	$s_x=0$ $s_m=\infty$
dB	kX	$kX(d_x+d_m-1)$	kXd_x	kXd_m
XdT	kX	$-kX$	0	0
dE	0	$-kX(d_x+d_m)$	$-kXd_x$	$-kXd_m$

2. *Unstable foreign exchange market.* This situation will occur if (10″) is negative. Appreciation of the exchange ($k<0$) will then be called for to improve the balance of payments. Since (12″) is necessarily negative (zero in the limiting case), an appreciation of the exchange necessarily increases the standard of living. Hence, appreciation must improve terms of trade; (11) must be negative. Moreover, the improvement in the terms of trade must more than counterbalance the improvement in the trade balance. This is illustrated by Column II of Table II when

$d_x+d_m<1$ and exchange is appreciated so that $k<0$. For instance, if $d_x+d_m=0.5$, the exchange is appreciated by 1 per cent and the initial level of exports and imports is \$5 billion, the trade balance will be improved by about \$25 million, the gain from improvement in the terms of trade will be about \$50 million, and the increase in the standard of living will be about \$25 million. This corresponds to Case V in our original tabulation. It will always be the case when the foreign exchange market is unstable that an improvement in the balance of trade through appreciation of the currency will be accompanied by such a large improvement in the terms of trade as to more than compensate for the improvement of the balance of trade, thus raising the standard of living.[22]

B. *Trade Not Balanced Initially*

The above analysis is unrealistic because it assumes that trade is initially balanced, whereas exchange rate adjustments for the purpose of improving the trade balance will normally occur only when there is a substantial balance-of-payments deficit. For the convenience of the reader, we repeat the expressions relevant to this case:

$$dB = kX\left(\frac{s_x(d_x - 1)}{s_x + d_x} + \frac{d_m(s_m + 1)}{d_m + s_m}\right) - kB\,\frac{d_m(s_m + 1)}{d_m + s_m}, \qquad (10')$$

$$dT = k\left(\frac{d_m}{d_m + s_m} - \frac{s_x}{s_x + d_x}\right), \qquad (11)$$

$$dE = -\ kX\left(\frac{s_x d_x}{s_x + d_x} + \frac{d_m s_m}{d_m + s_m}\right) + kB\,\frac{d_m s_m}{d_m + s_m}\cdot \qquad (12')$$

From these an expression analogous to (13) but making allowance for initial imbalance in trade can be derived, to wit,

$$\frac{dE}{d\pi} = -\frac{dB}{d\pi} + X\frac{dT}{d\pi} - B\,\frac{d_m}{d_m + s_m}\cdot \qquad (13')$$

The results can again be analyzed for two different types of situations: (1) cases in which the foreign exchange market is stable, and (2) cases in which the market is unstable.

1. *Stable foreign exchange market.* If the market is stable so that depreciation is required to improve the trade balance, it is still true, as in the case of balanced trade, that improvement of the trade balance is accompanied by a lowering of the standard of living (with a limiting

[22] In the limiting case, which occurs when the two demand elasticities are zero, the balance of trade improves by kX when the exchange is appreciated in the proportion k, while the improvement in the terms of trade will yield a gain of kX, leaving the standard of living unchanged.

case in which the standard of living is unchanged). Moreover, the terms of trade (the change in which is unaffected by the presence of a deficit) may either improve, thus partially offsetting the burden of a reduced trade balance, or they may worsen, thus adding to the burden. If the elasticities of supply are both zero, it remains true that the improvement in terms of trade precisely offsets the burden of an improved trade balance, leaving the standard of living unchanged. In general, because of the presence of the added term in (12′) as compared with (12″), the depressive effect of an improvement in the trade balance on the standard of living is strengthened when there is an initial deficit.

2. *Unstable foreign exchange market.* In the first place, if home demand is inelastic, the chance of an unstable market is greatly reduced if there is a large initial deficit. If the market is unstable, however, as before, appreciation is required to improve the balance of trade. Since (12′) is necessarily always positive for exchange appreciation with an initial deficit, improvement in the trade balance must necessarily be accompanied by an increased standard of living. It can be shown that, as in the case of balanced trade, the appreciation must necessarily improve the terms of trade more than enough to counterbalance the improvement in the trade balance, thus producing the increase in the standard of living.

C. *Numerical Illustrations*

To illustrate more concretely some of the possibilities, suppose we consider a case in which the rest of the world has a deficit in trade with the United States of $2 billion per year. Exports to the United States are at an annual rate of 14 billion pesos.[23] Let us suppose that the elasticity of the American demand for the exports of the rest of the world is 0.5, and that the elasticity of demand of the rest of the world for imports from the United States is also 0.5.[24] We will first consider two sets of supply elasticities, both of which are consistent with a stable foreign exchange market. In the first case, the elasticity of supply of imports from the United States and the elasticity of supply of exports to the United States are both unity. In the second case, both supply elasticities are 0.4. In all cases, we suppose that the elasticities of de-

[23] We use the term "peso" as a general designation for all currencies other than the dollar. The reader should remember that our analysis assumes that currency units are so chosen as to make the exchange rate initially equal to unity.

[24] Many empirical studies of demand elasticities in international trade have been made. Most of the earlier studies seemed to indicate that the elasticities were so low as to make instability a decided possibility. An incisive critique of the methods used in these studies and a very useful bibliography are given in Orcutt, *op cit.* More recent studies seem to support the possibility of greater degrees of elasticity. For a good recent study of the elasticities of U. S. demand for imports, see J. H. Adler, E. R. Schlesinger, and E. Van Westerborg, *The Pattern of United States Import Trade since 1923* (New York: Federal Reserve Bank of New York, May 1952), Appendix C, pp. 69–78.

mand and supply are constant over the range within which the adjustments occur. The results are summarized in Table III.[25]

In the case of unitary supply elasticities (column (1)), a 33 per cent depreciation is required to eliminate the $2 billion deficit. This depreciation results in a 13 per cent deterioration in the terms of trade. This worsening of the terms of trade adds 2.2 billion pesos to the burden of 2 billion pesos on the standard of living due to the elimination of the $2 billion deficit, making a total burden of 4.2 billion pesos. In the other case in which supply elasticities are 0.4, a depreciation of the peso by 21 per cent is required to eliminate the deficit. Since, in this case, the product of the demand elasticities exceeds the product of the supply elasticities, the depreciation improves the terms of trade. This improvement amounts to 3 per cent, and, in view of the volume of trade involved, results in a net gain to the depreciating countries of 300 million

TABLE III.—NUMERICAL ILLUSTRATIONS OF EFFECTS OF EXCHANGE RATE ADJUSTMENTS FOR TWO SETS OF SUPPLY ELASTICITIES

(Exports initially 12 billion pesos; imports initially 14 billion pesos; $d_x=0.5$, $d_m=0.5$)

	$s_x=1$; $s_m=1$	$s_x=0.4$; $s_m=0.4$
Required depreciation of the peso	33%	21%
Change in terms of trade (improvement +, deterioration −)	−13%	+3%
Change in standard of living (increase +, decrease −)	−4.2 billion pesos	−1.7 billion pesos

pesos. This cancels part of the direct burden of 2 billion pesos, and leaves the net burden on the standard of living of equilibration of the balance of payments at 1.7 billion pesos.

To illustrate a situation in which the foreign exchange market is unstable, we consider a case in which exports to the United States are $14 billion and the deficit in foreign countries' trade with the United States is $2 billion, but in which the two elasticities of demand are 0.2 and the two elasticities of supply are 10.0. This gives an unstable market, and an appreciation of the peso by 25 per cent is required to eliminate the deficit. The results would be as follows:

Appreciation of the peso	25 per cent
Improvement in terms of trade	24 per cent
Increase in standard of living	1.4 billion pesos

In this case, the appreciation of the exchange rate required to equilibrate the balance of payments results in such a sharp improvement in the terms of trade as to add 3.4 billion pesos to the standard

[25] The method used in calculating these results is explained in the Appendix.

of living. This increase greatly outweighs the 2 billion peso burden resulting from the elimination of the deficit, leaving a net increase in the standard of living of 1.4 billion pesos.

III. *Conclusions*

1. In the "normal" case in which depreciation improves the balance of payments, it is not at all impossible or even improbable that this improvement may be accompanied by a bettering of the terms of trade.[26] This will happen if the product of the elasticity of foreign demand for exports and the elasticity of the domestic demand for imports exceeds the product of the elasticity of the foreign supply of imports and the elasticity of the domestic supply of exports. The consensus based on empirical studies has been that the demand elasticities are probably rather small, although this position appears to have been modified somewhat as a result of more recent studies.[27] It seems quite possible that the demand elasticities that would be relevant in judging the effects of a general depreciation of foreign currencies in relation to the dollar with the aim of eliminating a dollar shortage might be quite low. That is, the total elasticity of demand of the United States for all imports and the elasticity of world demand for American exports may be substantially less than unity. Even in this case, however, it seems by no means impossible that the rest of the world might find its terms of trade improved as a result of depreciation. Our analysis assumes the maintenance of full employment,[28] a not unrealistic assumption in these times when most countries pursue aggressive domestic policies designed to produce this result. Under full-employment conditions, the elasticities of supply of many exportable goods may be very low.[29] If they are lower than the demand elasticities, on the average, an improvement in the terms of trade may be expected. To the extent that such an improve-

[26] In her "Beggar-My-Neighbor Remedies for Unemployment," *op. cit.* (p. 163 in *Essays in the Theory of Employment*, p. 400 in *Readings in the Theory of International Trade*), Mrs. Robinson argues that the elasticities are likely to be such as to produce a deterioration of the terms of trade when the currency is depreciated. Her reasoning, however, relates specifically to slump conditions, and seems less convincing under conditions of full employment.

[27] *Cf.* the literature cited in footnote 24 *supra*.

[28] If a variable level of employment is considered, a further factor is introduced which would affect the standard of living.

[29] However, one should remember that the elasticity of export supply (for example) is a weighted sum of the elasticities of domestic supply of export goods and the elasticity of domestic demand for these goods. Thus, even if the domestic supply is very inelastic, the export supply may be elastic because domestic demand is elastic. That is, a rise in the domestic price may increase the volume of goods available for export by discouraging domestic consumption as well as by encouraging production. In this connection, too, it should be noted that the elasticity of export supply will depend, to some extent, upon the domestic measures that accompany the depreciation. For example, domestic measures which reduce sharply the demand for goods whose production requires resources which are also important in the production of exports will increase the elasticity of export supply.

ment occurs, it will reduce the burden of the depreciation on the living standards of the depreciating countries. Of course, it is quite possible, on the other hand, that the supply elasticities will on the average be greater than the demand elasticities, in which case the terms of trade will worsen and add to the direct burden of the improvement in the balance of payments. To estimate the result in a particular case, information regarding the relevant elasticities would be required.

2. Our analysis has shown that if the conditions for stability in the foreign exchange market are not satisfied, so that appreciation of the exchange is necessary to improve the balance of payments, the appreciation will be accompanied by an improvement in the terms of trade. Moreover, the improvement in the terms of trade will be so great as to overbalance the direct effects of the balance-of-payments change, thus bringing a net improvement in the standard of living. Thus, in the context of our analysis, elasticities low enough to make the market unstable, far from being undesirable, as has sometimes been indicated, provide the most favorable circumstances of all for a country desiring to improve its balance of payments by means of exchange rate adjustments.[30]

Appendix

Suppose we know the initial level of exports (X_0) and of imports (M_0) of a country or a region, and we are able to estimate with reasonable confidence the elasticities s_x, d_x, s_m, and d_m, which we believe prevail over the relevant range of the balance of payments. The balance of payments shows a deficit initially and we want to estimate (1) the magnitude of the exchange rate adjustment that will be required to eliminate the deficit, (2) the effect of this adjustment on the terms of trade, and (3) the impact on the standard of living. Under these conditions, we may assume that the demand and supply functions are of the constant elasticity variety over the relevant range, *i.e.*,

$$X = K_1 p^{s_x}$$
$$M = K_2 q^{d_m}$$
$$X = K_3 p'^{d_x}$$
$$M = K_4 q'^{s_m}.$$

[30] It is worth pointing out, too, that appreciation, through the increase in the standard of living that it will necessarily produce, according to our analysis, will tend to have anti-inflationary effects. That is, it will increase the supply of goods available for domestic use, thus mitigating inflationary pressures that may exist. However, appreciation does not appear to be a practicable anti-inflationary measure unless (a) the country has a balance-of-payments surplus which it is willing to see reduced, or (b) it has foreign assets which it is willing to use to finance an increased deficit, or (c) it can rely on getting increased foreign aid in the form of grants or loans, or (d) the foreign exchange market is unstable so that the appreciation will improve the balance of payments. *Cf.*, R. Hinshaw, "Currency Appreciation as an Anti-Inflationary Device," *Quart. Jour. Econ.*, Nov. 1951, LXV, 447–62.

If we measure prices using the initial situation as a base, and define our currency units so that initially $\pi=1$, we have $p=p'=q=q'=1$, and our demand and supply functions become

$$X = X_0 p^{s_x} \tag{1}$$

$$M = M_0 q^{d_m} \tag{2}$$

$$X = X_0 p'^{d_x} \tag{3}$$

$$M = M_0 q'^{s_m}. \tag{4}$$

Using the fact that $p=\pi p'$ and that $q=\pi q'$, and substituting in the above equations, we can solve for X and M in terms of π,

$$X = X_0 \pi^{d_x s_x/(d_x+s_x)} \tag{5}$$

$$M = M_0 \pi^{-d_m s_m/(d_m+s_m)}. \tag{6}$$

Now substituting from equations (1)–(6) into the balance-of-payments expression $B=p'X-q'M$, we can get B as a function of π,[31]

$$B = X_0 \pi^{s_x(d_x-1)/(d_x+s_x)} - M_0 \pi^{-d_m(s_m+1)/(d_m+s_m)}.$$

Setting $B=0$, we can now find the value of π which will equilibrate the balance of payments. For example, in the first illustration on page 821 above, we had $d_x=d_m=0.5$, $s_x=s_m=1.0$, $X_0=14$ billion pesos, $M_0=16$ billion pesos. This gives us the equation

$$14\pi^{-1/3} - 16\pi^{-2/3} = 0.$$

It is not too difficult to get an approximate solution to such an equation by graphical methods. The solution is very close to $\pi=1.5$, *i.e.*, a 33.3% depreciation of the peso.

In similar fashion, we can derive the following expression for the terms of trade as a function of π.

$$T = \pi^{d_m/(d_m+s_m)-s_x/(d_x+s_x)}.$$

Substituting our computed value of π in this expression, we get $T=0.874$, or $\Delta T=-12.6\%$.

The impact on the standard of living can be calculated as follows. We have

$$E - M = F(X)$$

$$p = -F'(X).$$

From (1) above

$$p = \left(\frac{X}{X_0}\right)^{1/s_x}.$$

[31] It should be noted that in this appendix, as in the body of the paper, the signs of the demand elasticities (d_x and d_m) have been reversed. In using these expressions, therefore, all elasticities should be treated as positive.

Substituting and writing $dF(X)/dX$ for $F'(X)$, we have

$$dF(X) = -\left(\frac{X}{X_0}\right)^{1/s_x} dX$$

and

$$F(X) = -\int \left(\frac{X}{X_0}\right)^{1/s_x} dX.$$

Integrating and substituting $E-M$ for $F(X)$, we have

$$E - M = -X_0^{-1/s_x} \frac{s_x}{s_x + 1} X^{(s_x+1)/s_x} + C \tag{7}$$

and for the initial situation

$$E_0 - M_0 = -\frac{s_x}{s_x + 1} X_0 + C. \tag{8}$$

Subtracting (8) from (7), substituting (5) and (6) for X and M, and writing ΔE for $E-E_0$, we get the following expression for the change in the standard of living,

$$\Delta E = M_0(\pi^{-d_m s_m/(d_m+s_m)} - 1) - \frac{s_x}{s_x + 1} X_0(\pi^{d_x(s_x+1)/(d_x+s_x)} - 1).$$

We can now obtain ΔE by substituting X_0, M_0, d_x, s_x, d_m, s_m, and our computed value of π into this expression. In our illustration, this gives us $\Delta E = -4.2$ billion pesos.

OPTIMAL ADVERTISING AND OPTIMAL QUALITY

By ROBERT DORFMAN and PETER O. STEINER*

Lawrence Abbott discussed some of the principles of quality competition in a recent issue of this *Review*.[1] Most of the conclusions obtained by Abbott and a number of other results of some interest can be derived more easily by approaching the problem of differentiated competition from a broader point of view than Abbott's, using rather simple analytic tools. We demonstrate the technique which we have in mind, along with some results of intrinsic interest, by applying the technique to a few problems including Abbott's.

1. *Joint Optimization of Advertising Budget and Price*

Theorem: A firm which can influence the demand for its product by advertising will, in order to maximize its profits, choose the advertising budget and price such that the increase in gross revenue resulting from a one dollar increase in advertising expenditure is equal to the ordinary elasticity of demand for the firm's product. The proof of this statement will be given immediately. As a clarifying preliminary we state that we mean by advertising any expenditure which influences the shape or position of a firm's demand curve and which enters the firm's cost function as a fixed cost, *i.e.*, a cost which does not vary with the quantity of output. This concept corresponds generally, but not exactly, to the usual concept of advertising. It includes expenditures on billboards, newspaper space, radio time, interior decoration of a place of business, air conditioning of sales space, etc. And now, the proof.

We consider a firm which makes two kinds of choice: the price of its product and the amount of its advertising budget. Assuming this to be so, the relationship between the quantity the firm can sell per unit of time, q, its price, p, and its advertising budget, s, can be denoted by the formula

$$q = f(p, s). \tag{1}$$

We assume that $f(p, s)$ is continuous and differentiable.

In order to determine the optimal price-quantity-advertising con-

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[1] Lawrence Abbott, "Vertical Equilibrium under Pure Quality Competition," *Am. Econ. Rev.*, Dec. 1953, XLIII, 826–45.

stellation it is convenient for expository reasons to analyze the situation in two steps. In the first step we regard the quantity of output as fixed and specify the optimal price-advertising constellation for selling that predetermined quantity. Then we let quantity vary and seek its optimum. The advantage of this procedure is that cost considerations, other than the cost of advertising, do not enter the first step.[2]

Suppose, then, that price be changed by a small amount, dp, and advertising expenditure by a small amount, ds. The change in the level of sales will be the total differential of equation (1) or:

$$dq = \frac{\partial f}{\partial p} dp + \frac{\partial f}{\partial s} ds.$$

In order for quantity not to change as a result of these variations, dp and ds must be chosen in such a way that they have equal and opposite effects on quantity; so that $dq=0$. That is,

$$dp = -\frac{\dfrac{\partial f}{\partial s}}{\dfrac{\partial f}{\partial p}} ds, \text{ assuming } \frac{\partial s}{\partial p} \neq 0. \tag{2}$$

The result of these variations is to change gross revenue by the amount qdp, change advertising expenditure by ds, and leave the volume of sales and aggregate production cost unchanged. The net effect on profit is, therefore:

$$qdp - ds = -\left(q \frac{\dfrac{\partial f}{\partial s}}{\dfrac{\partial f}{\partial p}} + 1 \right) ds. \tag{3}$$

Now we must consider two cases: first, where the original level of advertising from which the variations were measured was positive, and second, where the original level of advertising was zero. We now show that a positive level of advertising cannot be optimal unless the quantity in parentheses in equation (3) is zero. For, if that quantity were positive we could choose a negative value for ds (signifying a decrease in advertising) which would have the effect of making the whole expression positive. It would therefore indicate that a decrease in advertising and a compensating decrease in price (as specified in equa-

[2] This two-stage mode of analysis has, of course, no effect on the result. It is unnecessary from a purely mathematical point of view, since we could handle this as a problem in the maximization of a function of several independent variables. The procedure adopted makes the problem amenable to more elementary methods.

tion [2]) would increase profit. Hence, the original level of advertising was too large to be optimal. Similarly if the parenthesis were negative, slight increases in both advertising expense and prices would serve to increase profits.

Analogous reasoning for the case where the original level of advertising was zero shows that profits could not be maximized if the quantity in parentheses were negative. Thus we have a *necessary* condition for profit maximization at any level of output (and therefore at all levels). It is:

$$q\,\frac{\dfrac{\partial f}{\partial s}}{\dfrac{\partial f}{\partial p}} + 1 \begin{cases} = 0 \text{ if } s > 0, \\ \geqq 0 \text{ if } s = 0. \end{cases} \tag{4}$$

Let us now define the ordinary elasticity of demand, denoted by η, by

$$\eta = -\frac{p}{q}\frac{\partial f}{\partial p}$$

and the marginal value product of advertising, denoted by μ, by

$$\mu = p\frac{\partial f}{\partial s}\cdot$$

This last concept is simply the rate of increase of gross receipts as advertising expenditure increases, price remaining constant. Substituting these concepts for the partial derivatives in equation (4) we find:

$$-q\,\frac{\dfrac{\mu}{p}}{\dfrac{q}{p}\eta} + 1 \begin{cases} = 0 \text{ if } s > 0, \\ \geqq 0 \text{ if } s = 0. \end{cases}$$

or, cancelling the p's and q's, multiplying through by η, and transposing:

$$\begin{cases} \mu = \eta & \text{if } s > 0, \\ \mu \leqq \eta & \text{if } s = 0. \end{cases} \tag{5}$$

This equation proves the theorem.

Furthermore, inequality of η and μ indicates the direction of change in price or advertising that will increase profits. If $\mu > \eta$, it will pay to increase advertising expenditure and price, as we saw in the discussion following equation (3). Inequality in the other direction leads to the reverse course of action in order to maximize profits.

Although the volume of sales, q, was assumed constant throughout this argument, the generality of the result is not restricted by this assumption. If a firm's position can be improved without changing its sales volume then, *a fortiori*, it can be improved if the possibility of changing sales volume is open to it. Therefore a condition which must be met if profit is to be maximized while holding volume constant must also be met if volume is permitted to change.

Figure 1 may help bring out the significance of this result. The figure consists of three parts, each representing a different conceivable situation. In each part the advertising budget, s, is measured horizontally. To each value of s there corresponds a certain price which maximizes

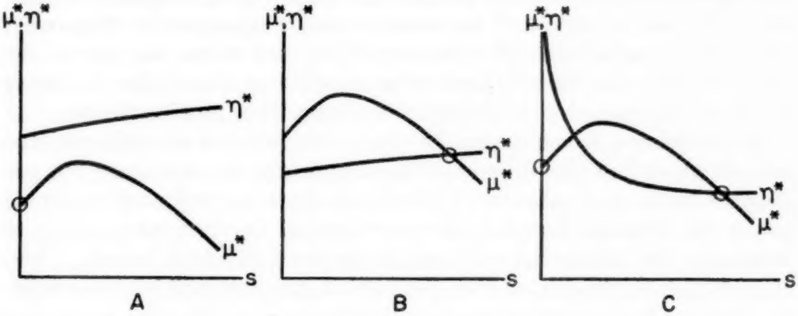

FIG. 1. OPTIMAL LEVELS OF ADVERTISING: ILLUSTRATIVE CASES.

profit regarding that advertising expenditure as given. To each such pair of advertising budget and optimal price there corresponds a certain elasticity of demand, which we denote by η^*, and a certain marginal value product of advertising, which we denote by μ^*. The three parts of Figure 1 show three possible ways in which η^* and μ^* may vary in response to changes in the advertising budget.

Our theorem shows that a nonzero level of advertising can maximize profits only if it corresponds to a crossing point of the η^* and μ^* curves. But not every crossing point, if there is more than one, is a profit maximizing point. Indeed, only points where μ^* crosses η^* from above correspond to profit maximization.[3] The circled points in the diagram indicate points of possible profit maximization.

What can be said about the shapes of the elasticity and revenue productivity functions portrayed? It seems plausible to assume that the effectiveness of advertising, indicated by the height of μ^*, increases initially but eventually shows decreasing returns. The effect of increased advertising expenditures on the elasticity of demand may work in either

[3] The proof is lengthy and, since it is fairly straightforward, it is omitted. It depends upon forming $\mu^*-\eta^*$ and finding its derivative in the neighborhood of crossing points.

direction,[4] and we offer no conjectures about it. In so far as the *existence* of an optimal level of advertising is concerned, the shape of the elasticity function is not critical. For if μ^* is ever greater than η^* (the necessary condition for advertising to pay at all), it must eventually cross it from above. This is because eventually μ^* will become less than unity, but η^* never will—by the classical arguments. In our illustrative figures we have arbitrarily drawn the elasticity curves as rising slightly in response to increases in advertising expenditures. It should be noted that changes in advertising budgets correspond to movements along these curves rather than to shifts of them.

A few market predictions follow at once from these considerations. In a perfectly competitive market the elasticity of demand for each firm's output is infinite. If we were to draw a diagram like Figure 1A for such a market, the η^* curve would be well above the top of the page. In this case the marginal value product of advertising is always less than the elasticity of demand and there will be no advertising.

At the other extreme are markets in which products are differentiated and in which product differences are important to consumers but are difficult for them to measure. Typically such markets offer a structure of prices for different brands. Either or both of two reasons conduce to relatively low elasticities of demand for the individual brands. First, there is a strong likelihood that the market structure will lead to retaliatory pricing if important changes in the structure of prices are attempted unilaterally. For this reason the relevant elasticity of demand may be approximated along a *mutatis mutandis* demand curve. Second, the price-brand preferences will reflect an uncertainty on the part of consumers which will make them reluctant to respond to changes in price differentials. To see this most clearly, imagine that consumers did know exactly what the differences between brands were worth to them. Then if any brand reduced its price it would immediately attract the "marginal" customers of other brands. Indeed we should have the case where the different brands were essentially competing commodities. But consumers' uncertainty blurs the sharp edge of preferences and replaces a cardinal ranking by something more like an ordinal one. The result is reduction in the effectiveness of changes in the price gaps between brands.

At the same time consumers' uncertainty has the effect of increasing the marginal effectiveness of advertising because consumers will not hold firmly to their appraisals of the relative merits of competing products. These circumstances are conducive to heavy advertising expenditure. Figure 1B would be typical of such a market.

[4] *Cf.* Neil H. Borden, *The Economic Effects of Advertising* (Chicago, 1947), esp. pp. 438, 850–51, 879.

A third important type of market occurs when product differentiation would not be important economically in the absence of advertising but when appropriate advertising can induce consumers to attach importance to the distinguishing characteristics of competing brands. Our previous conjecture concerning the effects of advertising on elasticity would not apply to this kind of market. Instead the elasticity of demand faced by any such firm would be infinite in the absence of advertising and would be decreased to finite levels by advertising. Figure 1C portrays the behavior of the curves in such a market. The perfectly competitive situation corresponding to zero or merely nominal levels of advertising would be transformed into the imperfectly competitive market corresponding to the circled intersection of the curves if aggregate profit were greater under the latter condition than under the former. Which of the two possible equilibrium situations is the more profitable will depend on the shape of the firm's cost curves and cannot be judged from this diagram alone.

In a monopolized industry as compared with an imperfectly competitive one both the effectiveness of advertising and the elasticity of the firm's demand curve are likely to be low. The appropriate level of advertising will depend very heavily on the special characteristics of the product, *e.g.*, necessity or luxury, major expenditure item or minor, closeness of substitutes, etc.

2. *Joint Optimization of Quality and Price*

In this section we find the optimal price-quality position for a firm which can influence its sales by modifying either the quality of its product or its price.

By quality we mean any aspect of a product, including the services included in the contract of sales, which influences the demand curve. The essential difference from advertising is that changes in quality enter into variable costs. Each conceivable quality will have a definite average cost curve, but there may be several different qualities with the same average cost curve. In this case we may assume that only that quality which has the most favorable demand curve will be given serious consideration. Thus we may assume that quality can be improved only at the expense of operating on a higher average cost curve. By quality improvement we mean any alteration in quality which shifts the demand curve to the right over the relevant range *and* raises the curve of average variable costs.

Now we can find the profit-maximizing conditions. Since the technique is parallel to that used in the preceding section we shall abbreviate the exposition. Consider a firm which produces a differentiated product whose quality can be measured (*e.g.*, in terms of horsepower, tensile

strength, denier, etc.) and whose rate of sales per unit of time, q, is a continuous and differentiable function of price, p, and a quality index, x. We write as its demand function:

$$q = f(p, x)$$

The average cost of production, c, is a function of q and x:

$$c = c(q, x).$$

Just as in Section 1 we consider the effect on profit of arbitrary small changes in price and quality which have precisely offsetting effects on sales. This effect is expressed by the following equation, which is analogous to equation (3):

$$qdp - qdc = -q\left[\frac{\dfrac{\partial f}{\partial x}}{\dfrac{\partial f}{\partial p}} + \frac{\partial c}{\partial x}\right]dx.$$

By an argument similar to that following equation (3), the condition for profit maximizing equilibrium is found to be that the quantity in parentheses is zero, or:

$$-\frac{\partial f}{\partial p} = \frac{\dfrac{\partial f}{\partial x}}{\dfrac{\partial c}{\partial x}}\,.$$

This is the condition sought.

The left-hand side of this equation is the slope of the ordinary demand curve. The right-hand side measures essentially the rate at which sales increase in response to increases in average cost incurred in order to increase quality.[5] If the expression on the right-hand side of equation (6) is greater than that on the left, the indication is that an increase in quality will increase demand more than enough to compensate for the loss of sales that would result from an increase in price just sufficient to cover the increase in cost. Under such a circumstance quality should be increased.

Thus the general level of quality in any market depends on the relative magnitudes of two market characteristics and one technical characteristic of the product. Quality tends to be higher the greater the

[5] For example, if sales would increase by 100 units if the quality index were increased by one unit, and if this would raise average cost by $20, the right-hand side would be 5 units per dollar.

sensitivity of consumers to quality variation (measured by $\partial f/\partial x$), the lower the sensitivity of consumers to price variation (measured by $\partial f/\partial p$), and the lower the effect on average costs of quality changes (measured by $\partial c/\partial x$). These are the three co-ordinate determinants of the general level of quality.

This analysis also suggests the conditions which conduce to quality variety in a market on the one hand and standardization on the other. If a market consists of a number of groups of consumers having identical demand curves but differing in their responsiveness to quality changes it will pay to provide different qualities at different prices. Similarly, if the groups are uniformly sensitive to quality changes but different in price consciousness (*i.e.*, if $\partial f/\partial x$ is the same for all groups, but $\partial f/\partial p$ differs among groups), there will be a range of qualities offered in order to exploit the differences in the demand curves. The analogy to discriminating monopoly is apparent. *A fortiori*, if, as frequently happens, those members of a market who have relatively high sensitivity to price changes have low sensitivity to quality and vice versa, then a spectrum of qualities will be offered. In all other cases, the commodity will tend to be standardized.

The optimizing condition of the quality variation case can be made more comparable to that for the price variation case by introducing the elasticity of demand with respect to quality variation, defined by the formula:

$$\eta_c = \frac{c}{q} \frac{\frac{\partial f}{\partial x}}{\frac{\partial c}{\partial x}}.$$

This formula gives simply the ratio of the percentage change in demand to the percentage change in average cost, both induced by a small change in quality. If we multiply both sides of equation (6) by p/q and then multiply the right-hand side by c/c, we obtain

$$-\frac{p}{q}\frac{\partial f}{\partial p} = \frac{p}{c}\frac{c}{q}\frac{\frac{\partial f}{\partial x}}{\frac{\partial c}{\partial x}}$$

which, recalling the definition of the ordinary elasticity of demand, is equivalent to:

$$\eta = \frac{p}{c}\eta_c. \tag{7}$$

3. *Joint Optimization of Advertising, Quality, and Price*

In Section 1 we discussed the equilibrium conditions for a firm which makes decisions with respect to both price and advertising expenditure; in Section 2 we dealt with a firm which makes decisions with respect to price and quality. The combined case, that of a firm which makes decisions of all three types, is probably of greater practical interest than either of these separated cases. This combined case presents no difficulties. We note that since advertising expenditure and quality can be varied independently a firm will not be in equilibrium unless it is in equilibrium with respect to each of these variables separately. Thus all of the preceding analyses apply and a firm will not be maximizing profits in the combined case unless its price, quality, and advertising expenditure are such that:

$$\mu = \eta = \frac{p}{c}\,\eta_c.$$

We here assume, of course, that advertising is at a positive level.

4. *Optimal Advertising with Fixed Prices*

Theorem: If the price which a firm can charge is predetermined by conventional, oligopolistic, legal or other considerations, and if the firm can influence its demand curve by advertising, it will, in order to maximize its profits, choose that advertising budget and the resulting rate of sales such that

$$\text{Marginal Cost} = p\left(1 - \frac{1}{\mu}\right).$$

The reader will notice that this formula is formally identical to the familiar relationship connecting price, marginal revenue, and elasticity where price is a variable of choice.

This is a simplified variant of the problem of Section 1. In order for an optimum to obtain, the advertising expenditure needed to increase sales by one unit must equal the profit on the marginal unit, *i.e.*, the excess of the given price over marginal production cost, *MC*. The equilibrium condition is then,

$$\frac{\partial s}{\partial q} = p - MC. \tag{8}$$

Since the marginal revenue product of advertising is

$$\mu = p\,\frac{\partial q}{\partial s},$$

equation (8) can be written

$$\frac{p}{\mu} = p - MC$$

which, after transposing and factoring out p proves our theorem.

By solving this formula for μ it can be seen that when advertising expenditure is optimized, the marginal revenue product of advertising equals the reciprocal of the mark-up on the marginal unit produced.

5. *Optimal Quality with Fixed Prices*

Theorem: If the price which a firm can charge is predetermined and if the firm can influence its demand curve by altering its product, it will, in order to maximize its profits, choose the quality such that the ratio of price to average cost multiplied by the elasticity of demand with respect to quality expenditure equals the reciprocal of the mark-up on the marginal unit. In symbols, the maximizing condition is

$$\frac{p}{c}\eta_c = \frac{p}{p - MC}.$$

This is Abbott's[6] problem and is a simplified variant of the problem discussed in Section 2. To solve it we notice that for profits to be maximized the marginal cost of production plus the total increase in quality cost necessary to sell one more unit at the given price must be equal to the given price. Furthermore, the average increase in quality cost necessary to sell one more unit at the going price is the increase in quality cost per unit increase in the quality index, divided by the increase in sales at the going price per unit increase in the quality index.[7] From these two considerations we have, at the optimal quality for the given price:

$$p = MC + q\,\frac{\dfrac{\partial c}{\partial x}}{\dfrac{\partial f}{\partial x}}. \tag{9}$$

Recalling the definition of elasticity with respect to expenditure on quality and inserting it, we obtain

$$p = MC + \frac{c}{\eta_c}$$

[6] Abbott, *op. cit.*

[7] To see this more clearly suppose that average cost will increase by \$2 if the quality index is increased by one unit and that sales will increase by 10 units if the quality index is increased by one unit. Then a one unit increase in sales will result if quality is increased by 1/10 unit and this will raise average cost by \$2/10=\$.20.

from which our theorem follows by elementary algebra. It may be noted that equation (9) appears to be the result given by Abbott.[8] It clearly conforms to common sense. What it says is that if a small increase, say Δc, in average cost suffices to improve quality enough to increase sales by one unit at the going price, then the total increase in production costs will be $q\Delta c$ (to increase quality of all units) plus the marginal cost (to produce one more unit) and this must be just equal to marginal revenue (price, in this case) in profit-maximizing equilibrium.

In a zero-profit group equilibrium without advertising $p=c$ and equation (9) shows that for each firm average cost exceeds marginal cost. Thus the firms are operating in the decreasing range of their cost curves, a result also noted by Abbott.[9]

6. *Conclusion*

There are good grounds for doubting the economic significance of the whole business of writing down profit functions (or drawing curves) and finding points of zero partial derivatives (or graphical points of tangency). Such devices are merely aids to thinking about practical problems and it may be an uneconomical expenditure of effort to devote too much ingenuity to developing them. Yet such devices are aids to clear thought and, if sufficiently simple and flexible, they help us find implications, interrelationships, and sometimes contradictions which might escape notice without them. Such aids are particularly needed in the field of nonprice competition. We hope that the techniques suggested here will be of assistance in developing this field and bringing out its connections with the theory of price competition. The examples we have solved above are not only of importance in themselves but, we hope, demonstrate the flexibility and convenience of the technique which we suggest.

[8] Abbott, *op. cit.*, pp. 837–38.

[9] *Ibid.*, p. 844.

THE INTERNATIONAL SUGAR AGREEMENT OF 1953

By BORIS C. SWERLING*

Postwar discussions of principles and protracted negotiations on text produced three international commodity agreements in 1953. While tin could count at best on the tacit support, and wheat on the tacit opposition, of the respective major importer, the new International Sugar Agreement has received a considerable acclaim on both sides of the Atlantic.[1] Participation by the Soviet bloc has even been regarded by some as that long-awaited "hopeful augury of international cooperation"[2] in world trade. Those who feel uncomfortable about a "restrictive quota agreement"[3] that relies on production control and export quotas, or who see here "a gigantic international cartel, an adventure in international socialism,"[4] reflect only a small minority of published opinion.

Operationally the Agreement is indeed of the standard export-quota form modified only by consumer representation and a target "zone of stabilized prices."[5] Price in the world "free market," *i.e.*, that part of international trade enjoying no special protection or privilege in the country of destination, is to be held between 3.25 and 4.35 cents per pound, f.a.s. Cuba, by appropriate adjustment in the level and distribution of quotas. Price stability so defined is the primary objective but there are two minor themes. One is the notion that prices, quotas, and producer incomes under the agreement will conform to some principle of equity. Secondly, in accordance with accepted principles gov-

* The author, who is associate economist and associate professor, Food Research Institute, Stanford University, is grateful to V. P. Timoshenko, M. K. Bennett and Helen C. Farnsworth for helpful criticisms.

[1] *Cf. Economic Report of the President*, transmitted to the Congress Jan. 28, 1954, p. 56; *World Crops* (London), Nov. 1953, V, 436; F. O. Licht, *Sugar Information Service* (Ratzeburg), Sept. 2, 1953, p. 3.

[2] *Internat. Sugar Jour.* (London), Jan. 1954, p. 1.

[3] U.N. Dept. Econ. Affairs, *Commodity Trade and Economic Development* (New York, 1953), p. 53.

[4] U.S. Senate, Subcommittee of the Committee on Foreign Relations, *Hearing: International Sugar Agreement*, 83d Cong., 2d sess., p. 42. Criticism of a higher order will be found in *Staff Papers Presented to the Commission on Foreign Economic Policy* (Washington, 1954), pp. 207-11.

[5] For full text, see U.N., *United Nations Sugar Conference, 1953, Summary of Proceedings* (New York, 1953), pp. 23-28, and U.S. Senate, *Hearings: op. cit.*, pp. 7-36. Text of the prewar agreement is given in International Labour Office, *Intergovernmental Commodity Control Agreements* (Montreal, 1943), pp. 26-45.

erning commodity-control agreements,[6] a few clauses are directed at making those longer-run adjustments that present surpluses require.

While an international arrangement for sugar is easier to justify in the abstract and holds far fewer dangers than is common with commodity agreements, the expressed hopes of the agreement's sponsors and the fears of its detractors are equally likely to be disappointed. Importing countries have accepted few obligations; free-market exporters enjoy, for the most part, only token privileges. Existing export capacity (especially in Cuba) far in excess of prospective requirements of the free market, a legacy of the second world war and national sugar policies, will severely test the International Sugar Council's ability to hold price above the agreed minimum for some time to come. No clauses effectively deal with the basic problems, either by prying open protected markets, reducing margins of protection, or even preventing expansion of subsidized output and further contraction of the free market. Indeed, there is less ground for concern over "the dangers of artificially maintained prices" or the risk of "introducing undue rigidities in the pattern of production and trade"[7] than over the extreme looseness, if not the entire futility, of the present instrument.

I. *Instability of the Free-Market Price*

The "world" price of raw sugar fluctuates over a considerable range, though not so widely as the prices of many other primary commodities. The inflation that followed the outbreak of the Korean War jumped the quoted price of sugar, f.a.s. Cuba, from about 4.20 to almost 6.00 cents per pound, between June and August 1950. After a setback early in 1951 to about 4.80 cents in February, it climbed momentarily above 8.00 cents in June, only to fall back below 4.80 cents by the end of the year. Subsequently the "world" price sagged to a level little over 3.00 cents in October 1953.[8] In earlier periods, price variations of comparable magnitude and speed have been experienced from time to time.

In many respectable quarters, it is customary to argue that these price movements are due to the economic failings of unregulated marketing, and to look to an I.S.A. as a price stabilizer. Thus a study by the Food and Agriculture Organization states:[9] "Sugar exhibits to an unusual degree the features that make the operation of an unregulated

[6] U.N. Econ. and Soc. Council, Resolution 30 (IV) on March 28, 1947, and U.N., *General Agreement on Tariffs and Trade* (Lake Success, 1947), Vol. I, Art. XXIX (1).

[7] Food and Agric. Organization of the U.N., *Observations on the Proposed International Sugar Agreement* (Rome, 1953), Commodity Pol. Stud., No. 4, pp. 1-2.

[8] U.S. Dept. Agric., Prod. and Mktg. Admin., Sugar Branch, *Sugar Reports,* No. 21 (Oct. 1953), p. 21.

[9] F.A.O., Commodity Pol. Stud. No. 4, *op. cit.*, pp. 3-4.

'free' market undesirable." These undesirable features include "excessive price fluctuations" mainly because, "owing to the low short-term elasticities of demand and supply, even small changes in the balance of production and consumption tend to be associated with large variations in price." Moreover, in response to such price variations, "the cane-sugar industry has a chronic tendency to excess capacity." Both the F.A.O. and the United Nations, in a recent study of Latin American trade,[10] support the further notion that market adjustments are in fact perverse, because sugar producers can be expected to respond to low prices by increasing rather than by reducing output.

Such generalizations do not measure up well against the facts. There is clear evidence of some price instability and of severe "chronic surplus" in world sugar markets, but for reasons little associated with the characteristics of an "unregulated" market mechanism. The most important factors at work on world sugar prices have been the following.

1. Peacetime imbalances between productive capacity and sugar consumption have typically been huge, not "small." Cuba could turn out almost 6 million short tons in 1929, and Java about 3 million; within four years, sales had fallen to barely 2½ million and one million respectively. Cuba could today produce some 8 million tons but will be fortunate to sell 5 million. Excessive capacity developed primarily because heavy requirements for sugar imports following two world wars proved transitory. The second major factor contributing to imbalance in the 1930's was expansion in the Philippines, Puerto Rico, Hawaii, the Japanese Empire, India, and the British Empire, all of it to serve protected markets. Increased production in Europe and in the British Commonwealth are repeating the experience today. The natural counterpart of expansion in those regions is redundant capacity elsewhere, at the moment almost exclusively in Cuba. Excess capacity of this magnitude is responsible for the weakness in recent "world" prices.

2. If production and consumption of free market sugar *were* in close adjustment, then the narrowness of the free market, which supplies only the residual requirements of major importing countries, would be a prime cause of price instability. In actual practice, "world" sugar prices can fall a long way because importing countries react to moderately cheaper foreign sugar not by increasing imports but by increasing their margins of protection to domestic producers.

3. While "relatively moderate changes in demand can have violent effects on prices" in a residual market,[11] "world" sugar is liable to perverse variability in free-market supplies quite as much as in free-

[10] U.N. Dept. Econ. Affairs, *A Study of Trade Between Latin America and Europe* (Geneva, 1953), p 70.

[11] "Shelter for Sugar's Cinderellas," *Economist* (London), Aug. 29, 1953, CLXVIII, 583.

market requirements. Continental United States, for example, is regulated by the strict quota provisions of the Sugar Act of 1948 as amended. Towards a total annual consumption of about 8 million tons, Hawaii, Puerto Rico, and the Philippines each contribute roughly one million, a further two million tons are processed from sugar beets and sugar cane on the mainland, and Cuba supplies most of the remainder. By definition, all imports into the United States are excluded from the free market. Though the "world" price and the U.S. price largely go their separate ways, American action has serious external repercussions. The Secretary of Agriculture, by varying the total marketing quota, has had a considerable success in stabilizing the domestic price of sugar. Periods when commodity prices generally are low, here and abroad, find the domestic price of sugar relatively high. United States sugar consumption at such times is accordingly discouraged, while sugar crops are relatively attractive. These variations both in production—more particularly of beet sugar—and in consumption lead the United States to import less sugar from Cuba during the very deflationary periods when that exporter is likely to be having greatest difficulty in marketing overseas; while more Cuban sugar tends to be absorbed in the United States when demand in the free market is also relatively strong. Stabilization of the American price of sugar accordingly contributes to the destabilization of the free-market price.

4. Quite apart from *movements* in the world price, the *structure* of international sugar prices is complicated by importer policies. The high price that Cuba receives on its United States sales covers overhead costs of production and permits exports to the world market to be priced at lower rates appropriate to variable costs alone. It might be said that the United States "subsidizes" consumption abroad (or that Cuba "dumps" on the free market) under this arrangement. Only rarely is the pattern reversed (Table I). Out of obvious long-run interest, Cuba continued to honor its United States quota for some months during 1950 and 1951 even at prices considerably below those ruling in the free market.

Interesting price differentials are also associated with the 1 million ton contract negotiated between the United Kingdom and Cuba on April 13, 1953. At a moment when "world" sugar was quoted at about 3.40 cents per pound, the contract specified 2.75 cents on shipments in 1953 and 3.04 cents on the portion remaining to be shipped in 1954. Exercise of British bargaining power forced the lowest price at which sugar had been traded in the postwar years. Cuba was not reluctant to concur because disposal of 1 million tons, even at a low price, made it easier to earn a higher return on the remainder of the crop. This, however, was an unusual transaction, preparatory to the termination of rationing in

TABLE I.—INTERNATIONAL DISPARITIES IN POSTWAR PRICES OF RAW SUGAR

Market Specification	Unit	Annual Average Price					
		1948	1949	1950	1951	1952	1953
"World" sugar, f.a.s. Cuba (sterling equivalent)	112 lbs.	23s.6½d.	33s.3d.[a]	39s.9½d.	45s.8d.	33s.4d.	27s.4d.
Commonwealth Sugar Agreement, c.i.f. U.K., at prewar freight	112 lbs.	27s.3d.	27s.3d.	30s.6d.	32s.10½d.	38s.6d.	42s.4d.
Cuba, f.o.b., U.S. sales	100 lbs.	$4.64	$4.86	$5.09	$5.07	$5.35	$5.42
Cuba, f.o.b., sales to rest of world	100 lbs.	$4.23	$4.08	$4.98	$5.67	$4.16	$3.41

[a] Calculated at exchange rate of $2.80, which became effective Sept. 18, 1949.
Source: C. Czarnikow, Ltd., *Sugar Review* (London) and International Monetary Fund, *International Financial Statistics* (Washington).

the United Kingdom. Over the longer haul, price features of the Commonwealth Sugar Agreement are more relevant.[12] That contract, scheduled to operate through 1960, guarantees Commonwealth exporters a total market for about 2½ million tons, of which roughly two-thirds is to be purchased at an annually negotiated price. While the Commonwealth Agreement price has not been consistently above the "world" level (Table I), it represents a riskless market for an assured volume of sales and has been at a sufficiently attractive level to encourage an impressive expansion of Commonwealth production. Moreover, it is now more than 50 per cent higher than in 1949, though the sterling equivalent of "world" sugar has fallen on average almost 20 per cent since then.

5. Sugar can hardly insulate itself against the effect of a general inflation or deflation of commodity prices, especially if open hostilities are an important causal factor (as was the case in 1950-51). But the peculiar political environment of the day implies that during war scares precautionary stockpiling will be taking place on both sides of the Iron Curtain. The major areas of beet-sugar surplus before the war were Poland, Czechoslovakia, and Eastern Germany, all now incorporated in the Soviet bloc. In the postwar period such surpluses as existed in these territories were mainly absorbed by the Soviet Union; any serious effort to improve consumption levels of the Russian people might be expected to continue the flow in an eastward direction. But even to the extent that these beet-sugar exporters recover their sugar trade with the West, exports can certainly not be counted on in a serious emergency.

[12] For text, see *Ministry of Food Bull.* (London), Jan. 12, 1952, pp. 3-8.

Here again we find supplies available to the free market likely to be cut back at the very moment when free-market requirements are heaviest. Regardless of the risk of open hostilities, international sugar markets now face the prospect of substantial, erratic fluctuations in nondollar beet-sugar supplies from Eastern Europe, in response as much to political considerations as to economic stimulus.

6. Europe's protected beet-sugar system, concentrated in a region liable to similar variation in weather conditions, introduces a further element of instability into the world market. European acreages planted to beets have tended to increase over time but do not show major fluctuations from year to year. Variable weather, by affecting the weight of harvested beets, does cause substantial changes in the annual crop. Since the direction of variation tends to be the same in all northern European countries, there is a counterpart in Europe's fluctuating imports of cane sugar from overseas. The United Kingdom, in promoting exports from Australia and South Africa at the expense of the free market, similarly accentuates the importance of natural hazards, for it is substituting regions which are drought-prone for sources where yields are more reliable.

7. Mills typically expand processing facilities and farmers extend plantings when prices are profitable, not when they are depressed. For all commodities, expansion is a smoother process than contraction; as compared with other commodities, sugar production is particularly responsive to moderate price increases, but is no more unresponsive to price decreases. The notion that growers will respond to low prices by perversely increasing output may be of some theoretical interest for primitive economies; it can have little practical application for commodities so closely tied to highly capitalistic processing facilities as are sugar beets and sugar cane. Cuban experience does not give evidence of a backward-sloping supply curve.[13]

To be sure, time series will demonstrate that, in some countries, "production actually tended to rise in periods when prices declined."[14] More sugar was indeed supplied in the 1930's by "Mauritius, Trinidad, British Guiana, Jamaica, and Australia," but for three main reasons: (1) these producers sold sugar not at the very unsatisfactory "world" market price but at far more favorable absolute prices; (2) the price of sugar relative to alternative export staples was, in certain of these regions, reasonably attractive; and (3) the decline in real costs, resulting from technological improvement, would have made some expansion

[13] *Cf.* J. W. F. Rowe, "Studies in the Artificial Control of Raw Material Supplies, No. 1, Sugar," *London and Cambridge Econ. Service*, Special Memo. No. 31 (Sept. 1930), p. 17.

[14] F.A.O., Commodity Pol. Stud. No. 4, *op. cit.*, p. 5.

possible even at reduced relative prices. Java, which received only the "world" price, increased production between 1927 and 1930 in the face of declining realized prices, because advances in agricultural science were making a new price structure feasible.

II. *Price Stabilization under the International Sugar Agreement*

Although the structure of international sugar prices is revealed by economic evidence, the price effects of two I.S.A.'s must be based more on conjecture from relevant clauses of the agreements than on analysis of actual experience. This is obviously true of the 1953 agreement, which became effective on January 1, 1954. Prices did rise in anticipation of the prewar International Sugar Conference of 1937 but fell back close to previous levels during the first quota year (September 1, 1937-August 31, 1938) and were subsequently dominated by the Munich settlement and its aftermath. So short a record of peacetime operation provides little basis for generalization.

Standing cane available for harvest and stocks of raw sugar already accumulated in Cuba, excess factory capacity in various countries, and protected expansion now in progress in others, imply that low rather than high prices are likely to concern the present International Sugar Council for the next several years, barring war or internal insurrection. The price-support features include adjustment of total export quotas to the estimated requirements of the free market; a ceiling on total stocks held in countries enjoying export quotas; and limitation of total production in quota countries to the sum of export quota, maximum stocks, and domestic consumption. Much is claimed[15] for the provision that export quotas must automatically and successively be reduced by at least 5 per cent within 10 days after the "world" price has stood below the 3.25 cents floor for 15 consecutive market days.

This is by no means a powerful enforcement mechanism. The floor is not buttressed by guaranteed importer purchasers, as under the International Wheat Agreement. The one clear obligation upon importing countries (Articles 7 (1) (i)) is that annual imports from nonparticipating countries not exceed 1951-1953 levels. Even that commitment can be circumvented by pleading monetary difficulties (Art. 25). A moderate clause included in the 1937 agreement, which could be interpreted as requiring importers to provide some relief for exporters by maintaining "adequate reserve stocks" (Art. 26 (a)), has been dropped. The weapon of lower export quotas gives out once cuts have reached 20 per cent of basic export tonnages, as they did in May. The floor price

[15] U.N., Interim Coordinating Committee for International Commodity Arrangements, *Review of International Commodity Problems 1953* (1954), p. 3.

has had to be maintained in the face of the high aggregate quota written into the agreement, despite a heavy 1953/54 beet crop in Europe, and despite the provision that shipments under the United Kingdom contract are not deductible from Cuba's quota. The floor was held less by the International Sugar Council than by the Cuban Sugar Stabilization Institute, which has intensified its pre-Agreement practice of regulating the flow of sugar into export. At that, prices stood below the Agreement from June to September.

While the top of the "zone of stabilized prices" is of only academic interest in present circumstances, the provisions of the new I.S.A. are hardly likely to cope with the type of situation that could make the ceiling operative. Increases in quotas are provided for in the same fashion as decreases, though the automatic increment is 2½ per cent larger. Quota countries must hold minimum stocks (amounting to 10 per cent of the basic export tonnage) for meeting increased free-market requirements, at the call of the International Sugar Council (Art. 13 (3)). Since the Communist bloc and Commonwealth exporters are not bound by this article, this basic reserve cannot exceed 450,000 tons, which is considerably less than the year-to-year fluctuations that must be expected in requirements. By contrast with the Wheat Agreement, which specifically provides for allocating supplies among eager importers while the ceiling is under pressure, the I.S.A merely assigns participating countries a priority over nonparticipating ones. Importers may withdraw from the agreement in the event of an abnormal price rise (Art. 44 (2)), or invoke the monetary escape-clause, but neither course of action can hold prices within the agreement limit.

The main guarantee against the prospect of high prices, like the chief support of the present market, is in fact unilateral: excess capacity already in existence in Cuba and the Cuban Stabilization Reserve. The latter, originally totaling some 1¾ million tons, was set aside from the record 1952 crop, for release against future United States quotas in five annual installments. Though these stocks are exempt from the maximum-stock provisions of the I.S.A., Cuba is expected to "consider" a Council request that they be made available to the free market (Art. 13 (6)). In the past, out of a sense of long-run interest, Cuba has tried to fill any increase in its United States quota, regardless of incidental effects on the free market. She can hardly be expected to act otherwise in the future.

III. *The Question of Equity*

Tests of equity perhaps ought not to be applied to an agreement that passed through several drafts over a period of years and was hammered into its final form only after six weeks of hard bargaining. But two

aspects of the question can hardly be ignored. One is the balance established between consumer and producer interests; the second, the distribution of benefits and burdens among exporting countries.

Equality of voting rights of importing and exporting countries is officially respected in the agreement. But the equivalence indicated in Table II is highly illusory. Four of the five largest blocs of votes are unlikely to

TABLE II.—VOTING STRENGTH, INTERNATIONAL SUGAR AGREEMENT OF 1953

Importing Countries		Exporting Countries	
United Kingdom	245	Cuba	245
United States	245	U.S.S.R.	100
Japan	100	Dominican Republic	65
Canada	80	China (Formosa)	65
Germany (Fed. Rep.)	60	Brazil	50
*Switzerland	45	Australia	45
*Ceylon	30	Czechoslovakia	45
*Norway	30	*Indonesia	40
Portugal	30	*Peru	40
*Greece	25	Poland	40
*Austria	20	France	35
*Israel	20	*India	30
Lebanon	20	Mexico	25
*Spain	20	Philippines	25
*Jordan	15	Belgium	20
*Saudi Arabia	15	*Denmark	20
		Haiti	20
Total votes	1,000	Hungary	20
		Netherlands	20
		South Africa	20
		*Nicaragua	15
		*Yugoslavia	15
		Total votes	1,000

* Countries failing to give appropriate notice of intention to adhere, as of May 7, 1954 (*International Sugar Journal*, June 1954, p. 149).

be cast according to the direct consumer or producer interest they are presumed to represent. Nor does voting strength properly reflect the importance of smaller importing nations that obtain all or a major portion of their sugar supplies from the free market. The consumer interest is further diluted by the failure of several medium-sized importers to ratify the agreement they helped negotiate.

The United States, for example, imports nothing from the free market and has for some months maintained the domestic price of raw sugar (including the ½ cent tariff) at almost double the "world" level.[16] While so high a differential might be maintained indefinitely, the danger

[16] U.S. Dept. Agric., Comm. Stab. Serv., Sugar Div., *Sugar Reports* No. 25 (May 1954), p. 2.

is that a quota premium judged excessive might bring Congressional correction. Besides, if Cuba ships sugar more vigorously into the United States during the key months of the marketing year for lack of other outlets, prices in New York can weaken though total imports are not increased. As for the State Department, it cannot ignore either the current well-being or reasonable expectations of the Cuban people, who happen to occupy a strategic island close to the Florida coast and in the main line of shipping via the Panama Canal. The United States will accordingly countenance, even if it does not actively promote, a higher free-market price.

The interests of the United Kingdom, which divides 49 per cent of the importer votes equally with the United States, are still more mixed. The United Kingdom does pay the "world" price, though the United States does not, on sugar imported from Cuba and the Dominican Republic, sources from which the first upsurge of unrationed domestic consumption has had to be met. Upon the import price of these same raw sugars Britain bases its competitive position in an important re-export trade in refined. But in these respects the United Kingdom position is extremely well hedged since large stocks have been built up under the Cuban contract at a price moderately below the agreement floor. Accordingly even a higher agreement minimum would have penalized other free-market importers or re-exporters relatively more than the United Kingdom, while a lower minimum could have involved the Treasury in inventory losses on government-held stocks. Moreover, on roughly one-third of the sugar covered by the Commonwealth Sugar Agreement, the United Kingdom assures Commonwealth exporters merely the "world" price together with the empire preference. A "satisfactory" world price is accordingly a specific objective of that agreement (Art. 9). To the extent that the United Kingdom is consequently penalized as importer, there are compensations in improved economic conditions for colonial sugar areas, and in the incentive for larger output in the sugar-exporting Dominions (Australia and South Africa). In any case much of the Commonwealth sugar sold at that price will in fact be purchased by Canada, not itself a party to the C.S.A. If Commonwealth exporters earn a relatively high return on "world" sugar, they may feel inclined to bargain less sharply with the United Kingdom during annual negotiations on sugar prices, and Canada would bear more of the costs of Commonwealth sugar expansion. It certainly can not be inferred that the United Kingdom has the clear interest in a low free-market price that might have been suggested both by its large net-import status in sugar and by its failure to participate in the new International Wheat Agreement.

Among other major importers, Japan comes closest to depending ex-

clusively on free-market supplies. The one million or so tons that once came from empire sources must now, as a result of the postwar territorial settlements, be purchased from foreign companies. While Canada now produces double its prewar volume of beet sugar, it continues to import some 500 thousand tons, or about 80 per cent of its rising requirements. Western Germany, a region with an estimated net deficit of more than 500 thousand tons before the war, was by 1950 importing at a rate that entirely compensated for the loss of shipments from German territories now under Communist control. But expansion of domestic beet-sugar production has been so considerable that self-sufficiency is in the offing, and Germany's heavy voting strength remains somewhat anomalous. Mainland China (including Manchuria) imported one-third of a million tons before the war, but that commerce no longer is reflected in the trade statistics of Western countries, and Red China could not be represented in 1953 at a United Nations Sugar Conference.

The remainder of "world" sugar exports go to a host of ultimate destinations. A group with net imports of 100,000 to 250,000 tons—including countries in Western Europe, Asia, and Latin America and such colonial and semicolonial areas as Algeria, French Morocco, British Malaya, Anglo-Egyptian Sudan—absorbed about 1½ million tons in 1935-39 but close to 2½ million in 1952.[17] Only the United States and the United Kingdom exceeded that collective prewar figure; the latter's postwar imports before 1953 had averaged only about 1½ million, and even an unrationed consumption may not support imports in excess of the combined takings of the group. A still larger number of countries, none with net imports above 85,000 tons and most below 10,000 tons, provide a total market for 1 million tons. It is these voices that will be subdued or still in the meetings of the International Sugar Council. The turns of the market are such that India, which happens currently to rank as a major importer, casts its few votes within the exporter group.

Among exporters generally, nations with an interest in high "world" prices can neutralize the votes of several that would prefer a larger volume of free-market trading. Australia and the Union of South Africa, which have no export quota at stake, can counterbalance the Dominican Republic, a nation capable of exporting more than 500 thousand tons on the free market. Brazil, France, and the Philippines, which export a trivial portion of their crop on the free market, offset the voting strength of China (Formosa) and Peru,[18] countries that enjoy no privileged

[17] U.S. Dept. Agric., For. Agric. Serv., *Foreign Agriculture Circular,* FS 4-53, July 7, 1953.

[18] Peru subsequently refused to sign the agreement.

outlets for the great bulk of their production. The position of the Soviet bloc is somewhat peculiar. Though the postwar direction of trade might justify placing the U.S.S.R. in the importer column, the agreement excludes from the free market any sugar shipped to the U.S.S.R. from the Soviet satellites. The U.S.S.R. therefore remains in a position to strengthen the bargaining position of Eastern European exporters vis-à-vis the West.

Paradoxically, the major exporting nation stands as the chief defender of the consumer's interest. What Cuba seeks from an international agreement is not primarily a high price but rather some assurance against further shrinkage in the total free market. In selling outside the United States, Cuba's sole competitive advantage rests on an ability to offer sugar at prices that look quite unattractive to practically every other producing region. Even 2½ cent sugar need not be fatal for her, and might possibly bring redemption. At that price, expansion by competing exporters would run into strong resistance; occasional exports from normally self-sufficient countries would be discouraged; and the degree of sugar protectionism in the Commonwealth and Continental Europe might warrant reappraisal. A dent might conceivably be made on the sugar markets within South America, which have been expanding of late more rapidly than elsewhere but for the most part without resort to imports. The higher the price target of a sugar agreement, the greater the restriction imposed on Cuban production, and the broader the umbrella held out to shield Cuba's competitors. She can accordingly be counted on to vote for a relatively high volume and a relatively low price, as she did also in the deliberations of the Sugar Conference.[19]

The distribution of benefits and burdens can hardly be appraised as precisely as the interests of participating countries can be pinpointed. That privileged sources of supply come out extremely well, there can be no doubt. This is most unfortunate. At the crux of any I.S.A. are the restraints that major importers accept upon protected domestic output and upon supplies from specially privileged areas. Under the I.S.A. of 1937, a serious attempt was made at least to maintain the *status quo* and to reserve for free-market exporters a share of increases in consumption. Now a further erosion of the free market has been sanctioned. Consistent with the C.S.A., allowable exports of Commonwealth territories are 50 per cent higher than in 1937. Shipments from the Soviet satellites to the U.S.S.R. are in no way inhibited. Up to 175,000 tons that five Western European countries would for-

[19] *Cf.* U.N. Econ. and Soc. Council, *United Nations Sugar Conference 1953, Executive Committee, Summary Record of Meetings,* E/CONF. 15/EX/S.R. 1-17 (Oct. 21, 1953, mimeo.), p. 56.

merly have imported from the free market are now reserved for exports originating within the group. Even the modest obligation to reduce protective margins as the free-market price rises (Art. 4, I.S.A. of 1937), in order that domestic consumption might be encouraged and domestic production restrained, has now been dropped. In the view of the United States Department of Agriculture, neither increases in statutory marketing quotas of domestic producing areas nor occasional exports of over-quota domestic sugar would violate America's commitments as an importing nation.[20]

In other respects also, sheltered exporters stand on firm ground. Because they operate planned national economies, Eastern European exporters escape the duty of having ever to "restrict" production or even to report on subsidies. Australia and South Africa, though they vote as exporters, need not carry minimum stocks as most free market exporters are required to do. Under perhaps the most peculiar clause of all (Art. 16 (2)), British Commonwealth exporters can renounce all obligations, light though they are, if a Commonwealth importer enters into a "special trading arrangement" guaranteeing a specified portion of its market to any participating exporter. This clause would tend to prevent the renewal of such trade agreements as Cuba and the Dominican Republic have recently had with Canada, and Commonwealth exporters seem to be denying to relatively weak economies the kind of guaranteed markets that the British Colonies and the Dominions have assured for themselves.

In the actual allocation of export quotas (Table III), countries naturally enjoyed uneven success. Of countries exporting exclusively to the free market, Dominican Republic's basic export tonnage[21] is 50 per cent higher, Peru's 15 per cent lower, than in 1937. Bargaining strength must have been a more important consideration than either performance or efficiency. Indeed Peru, claiming to be "possibly the cheapest producer in the world," insisted that "Neither the United Nations nor the present Conference could press an efficient producer to become an inefficient one,"[22] and accordingly withdrew its representation. Formosa and the Dominican Republic each enjoy a basic quota of 600,000 metric tons. The latter's production has rarely been sufficient to fulfill five-sixths of its quota, while Formosa supplied fully a million tons as part of the Japanese sugar empire before the war and has since exceeded the quota figure under trying local conditions. Indonesia,

[20] U.S. Senate, *Hearings, op. cit.*, pp. 4, 52.

[21] Quotas actually in effect at any one time will regularly differ from basic export tonnages. Adjustments are to be made, in accordance with prescribed rules, to take account of changed estimates of free-market requirements, reallocation of unused quotas, etc.

[22] *United Nations Sugar Conference, Executive Committee, op. cit.*, p. 49.

TABLE III.—FREE MARKET EXPORTS AND I.S.A. BASIC EXPORT QUOTAS

(*Thousand metric tons*)

Country	Basic Quota 1937	Assigned "Basic Export Tonnage" 1953	Requested Quota 1953	Net Exports 1951/52
Cuba[a]	940	2,250	2,500	2,362
Dominican Republic	400	600	700	524
Formosa	[b]	600	750	398
Peru	330	280	360	304
Czechoslovakia	250	275[c]	450	315
Indonesia	1,050	250	500	8
Poland	120	220[c]	350	220
U.S.S.R.	230	200	250	
Brazil	60	175	400	2
Eastern Germany	120[d]	150[c]	250	340
Mexico	0	75	100	9
Denmark	0	70	75	104
Total[e]	3,623	5,390	7,005	4,905

[a] Excluding exports for consumption in the United States.
[b] Part of Japanese Empire.
[c] Excluding exports to the U.S.S.R.
[d] Prewar Germany.
[e] Including unlisted exporters.
Source: F. O. Licht, *Sugar Information Service*, Sept. 2, 1953, p. 3.

which enjoyed the largest export quota of all in 1937, has shipped out practically no sugar for the past ten years. But a 250,000 ton quota, and a contingent claim to favorable future treatment (Art. 14A (5)), have not been enough to win its ratification. Brazil, Mexico, and France, while normally self-sufficient, look to export as a safety valve for occasional domestic surpluses, and have been provided for in various ways under the agreement.

The Cuban quota of 2¼ tons can hardly be considered ungenerous. The figure is more than twice as large as in 1937, and represents fully 40 per cent of the total allotment to all exporters. But Cuba's potential for expansion in response to modest price stimulus is enormous. At the close of World War II, European beet sugar production was depressed as the result of wartime destruction compounded by social and economic disorganization, while the export industries of Java, the Philippines, and Formosa were temporarily wiped out in the wake of Japanese invasion or unsettled political conditions. Cuba helped correct these deficiences by contributing almost half of all sugar that moved in international trade during 1945-49, protected and free-market supplies alike. Sugar production, the basis of her well-being, had by 1952 reached almost 8 million tons, as compared with a restricted crop of about 3 million

tons in 1935-39 and a peak of just under 6 million in the late 1920's.

Though still the largest single element in the United States sugar supply, Cuba has consequently become increasingly dependent on the free market. As recently as the late 1920's, only one-quarter of her crop had to find an outlet outside the preferential American system. In the 1930's, conditions on the island were barely tolerable with a million-ton quota under the I.S.A. and twice that volume of exports to the United States. The United States of late has been absorbing closer to 3 million tons a year. But in the crop years when Cuban exports were highest (1947/48 and 1950/51), more than half had to be sold outside the United States, many of the necessary dollars coming, however, from various U.S. aid programs. Sugar output in importing regions generally has now recovered to and in many cases surpassed prewar levels. Even without an I.S.A., poor market prospects induced Cuba to restrict her 1953 crop to 5½ million tons by official decree. With a substantial quota under the agreement, her best prospects are to limp along at less than two-thirds of productive capacity and a considerably lower fraction of obvious potential.

IV. *International Problems of Sugar*

Participants have an official responsibility to initiate programs of economic adjustment that "ensure as much progress as practicable within the duration of this Agreement towards the solution of the commodity problem involved," and weak provisions do aim at lower subsidies and higher consumption (Articles 3-5). But it is fair to say that towards the root difficulties of the world's sugar, the I.S.A. makes no contribution whatsoever.

1. Two world wars disrupted former patterns of production and trade, and on both occasions the world temporarily (and rationally) turned to low-cost Cuban sugar to make up the deficiency. How is Cuba to adjust to a lower level of demand without social disaster? What is the peacetime function of an economy whose resources are called into full play only after the nations go to war? In a one-crop economy, Cuban sugar producers cannot, like growers of many crops in the United States, look to the public treasury for supplementary income in foul weather.[23]

2. The inclination of major importers to supply an increasing portion of national consumption from protected sources creates great disparities in the well-being of various exporting regions. In the Caribbean,

[23] While reserves of American wheat and cotton are held in the strong hands of the Commodity Credit Corporation, the United States relies on a weak Cuban economy to carry the surplus stocks and excess capacity essential for meeting sugar requirements in any emergency.

Puerto Rico sells its entire output (though not its full potential) at the favorable U.S. price; the British West Indies and British Guiana currently sell under similarly favorable conditions in the United Kingdom. The Dominican Republic, however, must market practically its entire output at the world price, while Cuba straddles New York and points overseas. In the Orient, the Philippines enjoy the U.S. outlet, but Formosa (and Indonesia) take what they can get, especially from Japan. Political decisions in importing countries, not the efficiency of production methods, largely determine the prosperity of exporting regions. Cuba and the Dominican Republic, committed to international markets for 90 to 95 per cent of their sales, find the limits imposed on domestic policy extremely narrow and have little voice in external decisions that are crucial to their well-being. Several sugar-exporting islands enjoy independent nationhood without being viable economic units, whereas colonial sugar producers today have the ear and the aid of the metropolitan legislature. Is there perhaps a road out of the present difficulties through political federation of tiny economic units, not merely within but beyond the British West Indies?[24]

3. For several decades, markets have been further disturbed by the effects of a technological transformation of sugar-crop production. For beets, this process has been largely agricultural, notably mechanization of the harvest. It might also perhaps be described as "defensive": the new practices have not generally permitted beet acreages in the United States to hold their own in competition with other crops, but at least the basis was provided for resisting a strong downward trend. For sugar-cane technology, the changes have had far wider ramifications. Modernization of processing facilities, improvement in cane transport and agricultural practices, and introduction of higher-yielding cane varieties, have led the way in transmitting modern science to tropical agricultural economies. In this process, free-market exporters frequently played a pivotal role. In Cuba, the advantages of rail transport and highly capitalistic milling have been most fully realized. Java set the pace in improving cane varieties. But the profits from scientific advance have come to accrue more to their specially favored rivals, who are in a better position to make long-term investments with full confidence of selling their final output in protected markets. Nationalistic sugar systems now provide the incentives that nurture the technological innovators, in field mechanization or bulk shipment, while free-market producers have become the laggards.

4. The incentive to promote domestic or empire production has been reinforced in the postwar period because more of the sugar available

[24] As implied by D. H. Robertson, *Britain in the World Economy* (London, 1954), p. 84.

from free-market sources requires dollars than formerly. However, while promotion of dollar-replacing production is in the customary case a measure taken to the advantage of relatively weak importing economies and to the disadvantage of relatively strong exporting ones (like the United States or Canada), dollar supplies of sugar originate in countries (Cuba, the Dominican Republic) that are distinctly less prosperous than the major importers.

If one asks why Cuba nevertheless prefers to restrict its crop severely rather than accept payment in soft currencies, the answer is not simple. To be sure, the economy has a high propensity to import American goods. The United States is a natural source of the rice, lard, cotton goods, or wheat flour that Cuban consumers require. Clearly the American manufacturer of machinery, vehicles, and metal products has an edge over rivals in the nearby Cuban market especially when a respectable fraction of the orders for capital goods are placed by American-owned enterprises on the island. But part of the explanation lies in the fact that any alteration in Cuba's basic trade or monetary policies would jeopardize her delicate position in the American sugar-quota system. Despite marketing difficulties, the peso remains pegged to the dollar; the alternative of exchange control is not seriously considered; and reciprocal preferences with the United States inhibit trade with other countries. As a member of the dollar area, Cuba's ties are stronger, but her privileges perhaps less, than her counterpart within the sterling area.

Clearly, to criticize the I.S.A. of 1953 for introducing a "restrictive quota system" is to exaggerate its powers. Under present conditions, Cuba is inclined to restrict production and to hold stocks, agreement or no. What is at fault with the present agreement is that it accepts as its main objective the reconciliation of essentially irreconcilable national sugar policies, while failing to come to grips with identifiable underlying problems. There may be possibilities of experimentation in political, commercial, monetary, and fiscal directions, that a strictly commodity conference is in no position to explore. From the international instrument now in effect little can be expected.

THE ROLE OF PLANNING IN CONSUMER PURCHASES OF DURABLE GOODS

By ROBERT FERBER*

The purpose of this article is to report on an investigation directed at ascertaining the nature and role of planning in consumer purchases. That planning enters into a certain number of consumer purchases is not to be denied, nor is the possibility that it may figure in nearly all of certain types of purchases.[1] Means of forecasting purchases from a priori knowledge of purchase plans are attracting increasing attention.[2]

This investigation has sought to determine by repeated interviews with the same people the extent to which plans enter into purchases. In effect, it has sought to test the usefulness of the panel method in throwing light on the following questions:

With respect to durable-goods purchase plans: (1) For what types of goods are such plans made? (2) What is the economic horizon for durable-goods purchase plans? (3) With what assurance are such plans made? (4) How concentrated is purchase planning among population groups? (5) Is planning more prevalent among certain population groups than others?

With respect to the realization of durable-goods purchase plans: (1) How important are realized plans in total durable goods purchases? (2) What proportion of plans is actually fulfilled? (3) How does the proportion of fulfillments vary by the type of good? By the length of the plans? By the assurance with which they are made? (4) Do par-

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[1] Annual and other surveys of the Survey Research Center of the University of Michigan have indicated that many purchases are planned well in advance of actual expenditures. See George Katona and Eva Mueller, *Consumer Attitudes and Demand* (Ann Arbor, 1953), Survey Research Center Pub., No. 12. The results of the annual intentions-to-buy surveys of the Survey Research Center are published in spring and summer issues of the *Federal Reserve Bulletin*. Various marketing organizations also undertake periodic intention-to-buy surveys, such as that of the Midwest Farm Paper Unit with reference to buying intentions of farm families (*The Farmer*, St. Paul 2, Minn.), but these are not always published and their reliability remains to be ascertained.

[2] For a discussion of this question, see J. H. Lorie, "Forecasting Demand for Consumer Durable Goods," *Jour. Bus.*, Jan. 1954, XXVII, 62-70.

ticular population groups tend to fulfill a higher proportion of plans than others?

The first of the following sections provides background information on the operation of the study—time period covered, location, sample design, manner in which the data were obtained, and the questions asked. The second section is devoted to an analysis of purchase plans and planners, and the third section is concerned with the fulfillment of purchase plans. The implications of the findings are brought out in the final section, which suggests, on the basis of this study, a number of tentative hypotheses on consumer behavior for future investigation.

I. *The Study*

In March 1951 a continuous consumer panel operation was established in Decatur, Illinois, an industrial city of about 60,000 people. Interviews were conducted with about 150 people, representing as many families, selected by random methods from the city's population, and reinterviews were held at the end of each of the following eight months and at the beginning of January 1952. Altogether, data were obtained on ten waves of interviews, each wave approximately one month after the preceding one. Interviews were not always held with the same people, however, because of panel mortality, nonresponse and other factors. In cases where people dropped out of the sample, replacements were secured again by random selection from the city's population. By this means, the size of the panel was maintained at between 115 and 140 families per month.[3]

The total number of families interviewed once or more was 313, which constituted 85 per cent of all families approached and 66 per cent of the addresses selected for the sample. (The latter figure is low largely because of the limited resources available for the study which severely limited call-backs.) Of the 259 families that were contacted on one of the first 4 waves, about 10 per cent dropped out on one of the following 2 waves, and only a little more than 80 per cent were interviewed on 7 waves or more. It is for this reason that the analysis of characteristics of the plans and the analysis of fulfillments must be handled separately in this study despite the theoretical desirability of the alternate approach. The base for the analysis of plans is the 313 families who were interviewed once or more. The base for the analysis of fulfillment of plans is 131 families, however, because for this analysis it is appropriate to include only those families which have reported long enough to allow

[3] The effect of the sample design, and of panel mortality, on the validity of the results presented here is noted at various points in this study. For a fuller treatment of this question, see R. Ferber, "Observations on a Consumer Panel Operation," *Jour. Marketing*, Jan. 1953, XVII, 246-59.

the fulfillment or nonfulfillment of their reported plans to be checked.

The question of the possible effect of nonresponse on the results is treated separately in the appendix, which also contains more detailed information about the questions asked. Suffice it to say here that there was some evidence that the nonrespondents were more likely to be families making less durable-goods purchases and that the use of the panel method may tend to underestimate the degree of fulfillment of purchase plans.

The data sought in these interviews, and the questions asked, were essentially the same on all waves. The questions pertained to the following four general subjects: (a) Purchases of durable goods during the past month (on the initial interview, during the past six or nine months depending on the wave and on what was thought to be a convenient reference date), including queries on the circumstances of the purchase, period planned, and method of financing. (b) Plans for durable-goods purchases during the following nine to twelve months, including time, place, degree of certainty, length of plan, and method of financing. (c) Economic and political expectations—change in ability to buy durable goods over the past year; direction of expected change in next six months; and expectations with regard to family income, savings, prices of particular categories of durable goods, and the international situation. (d) Personal and family characteristics—age, occupation, family size, family income, maintenance of budget.

II. *Characteristics of Plans and Planners*

The type of people that plan ahead for durable-goods purchases and the characteristics of these plans are the subjects of this section. It is desirable first to consider what is meant by a "purchase plan" and how "durable goods" are defined in this study.

The Meaning of a Purchase Plan

The term "purchase plan," as used in the interviews with the panel members, was deliberately not clearly defined, since it was desired to learn about purchase plans possessing different degrees of definiteness. Thus, respondents having purchase plans were questioned about their degree of certainty regarding the purchase, when they planned to make the purchase, where they planned to make it and how (cash or credit), and how long the plan had been in existence; yet a purchase plan was accepted as such even if the answers given on all of these aspects were vague and indefinite. A purchase plan was regarded as any item named in answer to the question, "As things stand now, are you planning to buy any durables between now and next (name of month nine to twelve

months hence)? If 'yes' or 'not sure,' what are you planning to buy?" The reason for restricting purchase plans to twelve months in advance was to eliminate items scheduled for the indefinite future and regarding which the family might have no serious plans, *i.e.*, items where desire to buy is not usually matched by ability to buy, such as yachts.[4]

The definition of "durable goods" used is the same as that employed by the U.S. Department of Commerce[5] except for the inclusion of clothing and shoes. The change was made partly in the belief that many clothing items were at least as durable as other so-called durables—in the recent prosperity years, for example, it is a moot point which lasted longer, the family car or a man's overcoat—and partly because of the presumed similarity between many clothing items and other durable goods from the planning point of view. This similarity becomes even stronger if small purchases are excluded from consideration, as is done here by limiting the main analysis to durable goods plans involving a contemplated expenditure of at least $25, which we shall denote as "major plans." Data with regard to less expensive, *i.e.*, "minor," plans will be presented occasionally for comparative purposes. However, these data must be interpreted with considerable caution because of their greater susceptibility to underreporting bias.

In practice, the respondents were shown a card listing about 50 different durable items and asked if they had purchased "any durable goods in the last month, that is, any goods like those listed on this card." Later in the interview, the question was repeated with reference to durable-goods purchase plans. If there was any uncertainty, the respondent was encouraged to name the item in question and the interviewer made the final determination.

One may well ask at this point: To what extent do the reported plans represent all of the plans in the minds of the respondents? From an operational point of view a purchase can not be considered to have been planned unless the intention of making the purchase occurred to the respondent sufficiently in advance to allow its being reported as a plan in accordance with the schedule of the interviews. Hence, the extent to which reported plans represent all purchase plans depends not only on the memory and knowledge[6] of the individual but also on the interval

[4] The use of intervals of less than a year raises the question of seasonal influences on the results. No adjustment was made for this factor. This was partly because of the difficulty of doing so and partly because such effects are not likely to be substantial, since the survey covered a period of about a year and the sample size did not change appreciably during the study.

[5] U. S. Department of Commerce, "Business Statistics, 1953 Biennial Edition," p. 212, footnote 1 to p. 43.

[6] Knowledge enters into the picture whenever one individual is asked to speak for a group. As the writer has learned in another study (unpublished), many purchases and

elapsing between interviews. The shorter the interval, the larger will be the proportion of plans that are actually reported (though for some purchases involving extensive planning the difference will be negligible).

An attempt was made to estimate the extent to which plans were not reported because of the interval between interviews. This was done by ascertaining for each purchase reported how long it had been planned and relating this information to the interval between interviews. Ten per cent of major purchases reported were said to have been planned for less than one month (and 28 per cent not at all), so that the number of major plans reported would have been increased by at least 8 per cent had the interval between interviews been shortened sufficiently (assuming that half of the plans of less than one month had been picked up). We must say "at least" because of the possibility that some of the purchases reported as not planned might have been reported as plans on an *ex ante* basis with more frequent interviews.

Characteristics of Plans

The distribution of both major and minor plans reported during the entire course of the survey is shown in Table I by six broad categories of durable goods. A plan for a specific good was counted only once, irrespective of the number of times it might have been mentioned. As is evident from this table, the relative frequency of purchase plans for different types of goods differed substantially according to the size of the contemplated purchase. Most of the minor purchase plans—those involving a contemplated expenditure of less than $25—consisted of clothing items, whereas furniture and appliance items comprised most of the major purchase plans. Because the differences in plans by expected size of purchase are so substantial, the distribution of all plans, in the last two columns of Table I, represents a heterogeneous conglomeration not necessarily representative of any size of plans and is shown for comparative purposes only.

The distributions shown in Table I are not necessarily representative, either spatially or temporally of other communities in the country. Differences in climate, in economic conditions, in tastes and availability of goods (*e.g.*, television, amusement opportunities) would undoubtedly alter the "want distribution" of families residing elsewhere. It is not unlikely that the war scare existing during most of 1951 because of the Korean fighting may have produced an unusually large number of appliance and radio purchase plans, items which many feared would

plans are unreported when one family member reports for the family with reference to periods of six months and over. The present study is subject in part to this same limitation although the process of repeated interviews would be expected to mitigate the influence of this factor on the results.

TABLE I.—DISTRIBUTION OF PLANS BY TYPE OF GOOD AND SIZE OF PURCHASE

Purchase Category	Major Plans		Minor Plans		Total Plans[a]	
	Number (1)	Per Cent of Total (2)	Number (3)	Per Cent of Total (4)	Number (5)	Per Cent of Total (6)
Clothing	81	17.3	100	59.5	232	30.8
Furniture and furnishings	158	33.8	59	35.1	277	36.8
Appliances and radios	143	30.5	2	1.2	145	19.2
Auto and auto accessories	36	7.7	1	.6	37	4.9
Housing	44	9.4	0	0	47	6.2
Miscellaneous	6	1.3	6	3.6	16	2.1
Total	468	100.0	168	100.0	754	100.0

[a] Includes 118 items that could not be classified by size of plan.

be in short supply, as was the case during the second world war.[7] It should also be noted that this table, as well as all of the succeeding material, refers to *numbers* of plans, not to dollar amounts.

Ascertaining the length of a purchase plan on an *ex ante* basis involves obtaining two items of information at the time of the interview—the length of time the purchase had been planned to date, and when the purchase is expected to be made. The sum of the answers to these two questions is the length of the plan, at least at the time of that particular interview. Both of these questions were asked on this survey, and Table II shows the distribution of purchase plans by the length of time they had been in process, by the length of time expected yet to pass before the purchase is expected to be made, and by the total length of the plan.

Perhaps the most striking feature of this table is the length of time over which some purchases are planned.[8] This is brought out if we con-

[7] The data in this table, when compared with actual purchase figures, supply strong evidence that many minor purchase plans may not have been reported. Thus, the ratio of actual major purchases to actual minor purchases was less than half the ratio of planned major purchases to planned minor purchases. The size of this difference renders unlikely the possibility that it could be accounted for solely by the fact that minor purchases were more likely to be unplanned than major purchases.

[8] The large proportion of "not sure, no answer" plans is also noteworthy. The fact that the length of time plans have already been in process exceeds substantially the time expected to pass before the purchases are made, especially for major plans, is probably of no significance. The restriction of plans to items expected to be purchased within a year—by hindsight, an unnecessarily short interval—undoubtedly directed a great many replies into the "not sure" category and accounts for many, if not most, of the replies in that category.

That a larger proportion of plans have been in existence for a relatively short time—less than 1 month or 1 to 3 months—than the proportion of plans expected to be consummated within this interval is also probably not significant but a product of the survey design. Disparities in this direction are to be expected when interviews are repeated at monthly intervals and new plans therefore frequently picked up almost at their inception.

sider the distribution of the total length of plans, the last column of Table II. Ignoring for the moment those plans whose length was not ascertained and combining some of the smaller categories yield the following distribution of the total length of plans by size of contemplated purchases:

	Major	*Minor*
Less than six months	45%	73%
Seven months to one year	29	15
One year or more	26	12
	100%	100%

Considering the possibility that most of the plans in the "not sure" category were probably quite long, for the reasons stated in footnote 8,

TABLE II.—LENGTH OF PURCHASE PLANS, FOR PLANS REPORTED, BY SIZE OF PURCHASE

Time	Amount of Time Actively Planning to Buy (per cent) (1)	Time Expected to Pass before Purchase is Made (per cent) (2)	Length of Plan (per cent) (3)
A. Major Plans			
Less than one month	11.8	5.7	17.8
1–3 months	31.5	12.4	
4–6 months	6.4	18.1	2.3
7–12 months	14.3	10.5	12.9
1–1.9 years	15.9	0	6.7
2 years or more	14.3	0	5.3
Not sure, no answer[a]	5.8	53.3	55.0
Total	100.0	100.0	100.0
B. Minor Plans			
Less than one month	21.4	7.8	36.2
1–3 months	36.3	19.6	
4–6 months	5.4	14.3	3.3
7–12 months	6.6	19.6	7.9
1–1.9 years	8.9	0	4.6
2 years or more	1.8	0	2.0
Not sure, no answer[a]	19.6	38.7	46.0
Total	100.0	100.0	100.0

[a] Refers to purchase plans having some possibility of completion within 12 months.

it becomes clear that plans for durable-goods purchases, when they are made, are likely to extend over considerable periods of time—in the case of major items generally for more than six months.[9]

[9] An upper limit to the proportion of plans extending more than 6 months can be derived by assuming that all plans whose length was "not sure" fell in this category. This

Purchase plans tend to be long most frequently for housing, appliance, and furniture items, as is shown in Table III, and within those categories longer for major plans than for minor plans. Since Table III does not include the time expected to pass before the purchase is made, the figures shown underestimate the per cent of plans spanning time intervals of one year or more.

Clearly, considerable variation in the time distribution of purchase plans existed by type of good. It is not unlikely, however, that these differences may largely be accounted for by two factors: the size of the purchase and the extent of family participation in the purchase. The dichotomous (major vs. minor) division of purchases and plans does not make sufficient allowance for this factor. Thus, few major

TABLE III.—PLANS IN EXISTENCE FOR ONE YEAR OR MORE

(Per cent of total number of plans in each purchase category)

Purchase Category	Major Plans (1)	Minor Plans (2)
Clothing	22.5	6.0
Furniture and furnishings	32.9	18.6
Appliances and radios	38.4	0[a]
Auto and auto accessories	8.3	0[a]
Housing	43.2	[b]
Miscellaneous	33.3	16.7[a]

[a] Less than 10 plans.
[b] No plans reported.

housing purchases are likely to be less than $50 whereas most major clothing purchases probably fall in this range. The larger the size of the purchase plan, the longer is the planning horizon likely to be.

In addition, purchases that would be used by several members of the family are likely to have longer planning horizons than others because such purchases generally require family agreement, which may be preceded by considerable discussion.

About 6 out of 10 major plans and 9 out of 10 minor plans were "sure" or "almost sure" of fulfillment, in the opinion of the panel members. These data are generally consistent with those on the length of purchase plans by size of contemplated purchase. They appear to indicate that minor purchase plans, once made, reach a high degree of certainty in fairly short order, whereas major purchase plans progress

yields an upper limit of 80 per cent for major plans lasting more than 6 months and 60 per cent for minor plans of this length. The latter percentage, however, might be affected by the apparent tendency of respondents to neglect to mention many minor plans, the effect of which on this distribution is not clear.

toward certainty (and, as we shall see later, toward culmination) more slowly.

Considerable differences in degree of certainty of purchase plans were also evident by type of good. The proportion of major plans reported as sure or almost sure of completion varied from less than half in the case of appliances to more than 5 out of every 6 for clothing items. Hence, the percentage of total plans fairly certain of completion can not be considered representative of the corresponding percentages of purchase categories.

Characteristics of Planners

The degree of concentration of major plans among the panel members is shown in Table IV. A fair degree of concentration is evident, which is also true of actual purchases reported. This concentration is

TABLE IV.—CONCENTRATION OF PLANS AMONG PANEL MEMBERS[a]

Number of Plans	Per Cent of Families (1)	Per Cent of Plans (2)
0	24.4	0
1	26.7	14.6
2	23.7	25.9
3	10.7	17.5
4	3.8	7.9
5	4.6	12.5
6 or more	6.1	21.6
Total	100.0	100.0

[a] Based on 131 families interviewed four times or more.

accounted for by the existence of different "planning rates," *i.e.*, plans per family, among the different population groups. The groups accounting for the most plans were generally large-size families, professional and managerial families, and families whose head was between 20 and 34 years of age. These are groups which, except for professional and managerial families, do not possess much liquid assets or high incomes. However, it should be stressed that these findings refer to the number of plans, not to contemplated dollar expenditures.

Examination of the distribution of major plans by type of good within the various population groups indicates that the middle-income group registered more plans on each type of good than any of the other income groups. Professional and managerial families reported more plans on most items than any other occupational groups, though furniture purchase plans were more frequent among skilled laborers' fami-

lies, and housing and housing-maintenance plans among clerical-sales families. As before, furniture, car and housing purchase plans were most frequent among families with younger heads. Plans for the same items and for clothing were most numerous among large-size families.

The practice of keeping purchase records also affected plans reported, though less than one would expect.[10] Families that recorded all purchases did not report a significantly larger number of plans than families without regular purchase records, but families recording only large purchases reported 50 per cent more plans than other families.

To what extent was the presence or absence of plans related to a family's economic status, its financial outlook, and its general economic and political expectations? Families who felt that their financial position had improved in one way or another reported more major purchase plans than other families. (The same phenomenon was not much in evidence for minor purchase plans.) This is the gist of Table V,

TABLE V.—MAJOR PLANS PER RESPONSE BY PRESENT ECONOMIC STATUS

Economic Status	Change in Income[a] (1)	Earnings Relative to Expectations[b] (2)	Change in Liquid Assets[c] (3)	Change in Savings[d] (4)	Ability to Buy Durables Relative to Last Year[e] (5)
Better (More)	.41	.50	.50	.10	.51
Same (No change)	.085	.38	.35	.19	.26
Worse (Less)	.33	.41	.26	.25	.38

[a] First half of last year relative to first half of this year. Based on 111 responses received on Wave 5.
[b] Based on 123 responses received on Wave 10.
[c] Based on 413 responses received on Waves 1–3.
[d] Based on 115 responses received on Wave 5.
[e] Based on 253 responses received on Waves 1–6.

which presents figures on the average plans per response on various questions relating to present economic status. Allowance is made for the use of the same questions in more than one wave and for the fact that a particular respondent did not always give the same answer to the same question over time.

In almost all cases, families who reported having higher incomes or savings or who currently felt in a better financial position reported more purchase plans than other families. On the other hand, families whose present financial position had worsened did not report signifi-

[10] The wording of the questions is given in the appendix.

cantly fewer plans than families whose financial position had not changed over the past year.[11]

Income level was found to influence the relationship between purchase plans and direction of income change (or change in ability to buy durables) only to a limited extent. At lower income levels, in this case below $4,200 per year, purchase plans were reported more frequently by families whose incomes had risen than by families whose incomes had fallen or remained steady.[12] The same phenomenon was not observed, however, at higher levels of income.

More major purchase plans were reported by families expecting to be better able to buy durables in the next six months than were reported by other families. As is shown by Table VI, the same was not true for

TABLE VI.—MAJOR PLANS PER RESPONSE BY FAMILY'S FINANCIAL EXPECTATIONS

Expectation	Ability to Buy Durables in Next Six Months[a] (1)	Direction of Change in Income in Next Six Months[b] (2)
Better (Up)	.52	.36
No change (Same)	.17	.23
Worse (Down)	.13	.36
Not sure	.12	.16

[a] Based on 384 responses received on Waves 7–9.
[b] Based on 794 responses received on Waves 1–6.

families expecting higher incomes during the next six months (nor for minor purchase plans in either case). Again it appears that income-change alone is not a very sensitive discriminator between those who have purchase plans and those who do not.[13]

[11] Similar findings have been made with regard to people's general economic outlook and income change over the past year. G. Katona, *Psychological Analysis of Economic Behavior* (New York, 1951), pp. 183-84. Ability to purchase durables would seem to be a better discriminator of purchase plans than questions on direction of change in income or in savings, which are in effect possible causes of a change in ability to buy. Thus, nearly one-third of the reasons for changed ability to buy related to changes in the family situation (such as birth in the family), to prices, and to factors other than income or savings. Hence, an increase in income or savings could not always be taken to represent improved ability to buy durables. At the same time, however, "ability to buy" is a rather vague term and may be interpreted by many people as more or less synonymous with purchase plans.

[12] This may not always be the case, however, for "Many individuals whose rate of income has increased over a year feel at the end of the year they are worse off than they were at the beginning. . . ." J. B. Lansing and S. B. Withey, "Analysis of Consumer Demand from Repeated Interviews and Reinterviews," mimeographed copy of paper given at Midwest Conference on Research in Income and Wealth, 1951, p. 10. Price movements are of primary importance in this respect.

[13] Though in at least one other study, a larger proportion of those expecting higher

It is interesting to note, from Table VI, that families who were not sure of their expected trend in income or financial position in the next six months reported the fewest purchase plans. With regard to planning future purchases, the outlook of such families was clearly not optimistic.

A relationship similar to that uncovered between present economic status and degree of certainty of purchase plans was detected with regard to the family's financial outlook. Families that were pessimistic about their future finances reported fewer purchase plans than families optimistic in this regard, but at the same time the plans of the former possessed a higher degree of certainty.

People expecting lower prices in the future generally reported more purchase plans than those who did not.[14] This is based on replies received to questions on the postponement of purchases in the hope of lower prices later on; whether people purchasing durables were likely to get more for their money now or later on; and expectations with regard to price changes for particular goods over the next six months. No differences in purchase plans were evident, however, among those having different opinions as to the gravity of the danger of inflation. By hindsight it is doubtful if differences would be expected because such a question does not relate the current danger of inflation to future price possibilities, and therefore may not be too meaningful for the purpose of this analysis.

Respondents who were pessimistic about the international situation generally reported more purchase plans than those who were more optimistically inclined. This was most evident on questions with regard to possible future shortages. Interestingly enough, the average number of major purchase plans of those not sure about their answers was almost exactly the same as that of the people expecting shortages.

III. *Realization of Purchase Plans*

We now approach the task of determining the extent to which purchase plans are fulfilled. This section is devoted to two main considerations: the characteristics of plans that were realized as distinguished from those that were not, and the characteristics of families fulfilling purchase plans as distinguished from those that did not. Under the former heading we shall investigate the relative importance of fulfilled plans as well as the degree to which fulfillment of plans appears to be related to the degree of certainty and other characteristics of the plans.

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incomes reported durable-goods purchase plans than those expecting less income or the same income. G. Katona, *op. cit.*, p. 183.

[14] However, prices were found to have no effect on plans in another study. Lansing and Withey, *op. cit.*, pp. 10-11.

The Meaning of a Fulfilled Purchase Plan

In any study conducted over a limited period of time, a distinction between purchase plans that are fulfilled and those that are not encounters difficulty because of the possibility that some plans may be fulfilled after the period of study has ended. These realizations would not be known to the investigator and, in any straight tabulation of plans fulfilled versus plans not fulfilled, would be erroneously placed in the latter category.

In the present study, partial adjustment for this bias was possible because of the information obtained for each plan as to when in the future the purchase was likely to be made. With the aid of this information, and with a view to making use of as much of the data as possible, a plan was defined as "eligible" for study regarding its realization if interviews with that particular family had been made for at least three months beyond the date when the plan was expected to be consummated. Plans about whose purchase date the respondent was uncertain were also included but were treated separately.

An eligible plan was classified as "not fulfilled" if the purchase was not made by the estimated time plus three-months leeway. Again, plans with no purchase date were also included in the study of realizations, but if such plans had not been consummated, they were categorized as "tentatively not fulfilled."

To illustrate, suppose a family in April reported plans to buy a pair of shoes in June, a portable radio in August, and a car sometime during the year. If the family dropped out of the panel at the end of September, the planned purchases of shoes and of the car became "eligible" plans, but not that of the radio. If the shoes had been bought by September, this plan was considered fulfilled; otherwise, it was labeled "not fulfilled." If the car had not been purchased by the time of the last interview with the family, the plan was considered "tentatively not fulfilled."

Over 80 per cent of major plans whose timings were known were fulfilled within three months of the expected time of purchase, and only another 12 per cent within the next two months, so that extension of this interval would not appear to have had much effect on fulfillment and would have reduced considerably the data available for analysis. This is even more true for plans whose timings were uncertain, which constituted more than half of all plans reported. Nearly 90 per cent of fulfilled plans in this category came within three months of the time they were reported and only 3 per cent more in the following two months. In addition, there is a prior methodological finding that the degree of fulfillment of plans tends to be understated as a consequence

of the panel type of operation.[15] For these reasons, numerical results presented in the following sections with reference to the realization of purchases plans are almost certainly on the low side and are to be interpreted as general approximations.

Plans Realized

Roughly 4 out of every 10 eligible durable-goods purchase plans were fulfilled during the period studied; the percentage was about the same for both major and minor plans. These fulfilled purchases account for more than 57 per cent of all major purchases reported and which might have been stated as plans,[16] and about 43 per cent of all such minor purchases.

The degree of fulfillment of purchase plans is much higher if those plans are eliminated whose time of purchase was reported as uncertain. More than half of the plans where a definite time of purchase was given were fulfilled, both for major and minor items. On the other hand, for plans where no timing was given, a little more than one-third of the major plans and one-fourth of the minor plans were fulfilled during the period the families were observed. Thus, it would seem that plans whose timings are given are more reliable as indicators of future behavior than plans whose timings are not given.

The degree of certainty regarding fulfillment of a purchase plan, not surprisingly, is related to its realization, as is shown by Table VII[17] This table indicates that although degree of certainty is an important determinant of realization of purchase plans, it is not a substitute for knowledge regarding the timing of the plans. This is brought out vividly by Table VIII, which presents data on the proportion of plans fulfilled by timing and degree of certainty.

The bases for these two tables are admittedly not large, but yet the main results are clear. Plans stated with any particular degree of certainty were much more likely to be fulfilled if accompanied by a known time of purchase. If the time of purchase was given, realization occurred more frequently when the plan was accompanied by a higher degree of certainty. If the purchase was uncertain, however, a low degree of fulfillment could be expected irrespective of whether a prospective date for the purchase could be given.

[15] R. Ferber, *op. cit.*, pp. 254-58.

[16] The total number of such purchases was obtained as the sum of fulfilled purchases and the number of purchases reported on a family's third interview or later and not previously listed as planned but which were revealed to have been planned; more than half of the total was in this latter category. The latter determination was made on the basis of the family's response to the length of time that the purchase had been planned.

[17] The same conclusion was reached by Lansing and Withey, *op. cit.*, p. 53.

TABLE VII.—PLANNED MAJOR PURCHASES BY FULFILLMENT AND DEGREE OF CERTAINTY OF PLAN, WAVES 4–10

(Per cent of total plans in particular category)

Likelihood of Buying	Planned and Bought: Timing Given (1)	Planned and Bought: Timing Not Given (2)	Planned But Did Not Buy[a] (3)
Sure	84	33	45
Almost sure	8	17	17
Likely	4	11	8
Not sure; just thinking about it	4	39	30
Total	100	100	100
Number of plans	24	18	60[a]

[a] Timing was not given for 40 of these plans.

Note: The figures in this table and Table VIII do not correspond with those presented in the preceding section, which are based on data obtained on all waves and not on just Waves 4–10

If anything, knowledge of timing of a plan would seem to be at least as important an indicator of its realization as the degree of certainty felt by the respondent regarding its consummation. The manner in which these two factors complement each other is best illustrated by two examples with reference to the purchase of a new car. One man may reason as follows: "If I wait till October or November, just before the next year's models are released, I could probably get a current year model at a substantial discount. If I can get enough of a discount, this is what I'll do. If not, I'll make my present car last another year or so." Here, the timing of the purchase is known, but whether the plan will be consummated is uncertain.

Another man may have a different plan, which runs as follows: "My old car is pretty well banged up and can't last much more than a year

TABLE VIII.—MAJOR PLANS FULFILLED BY TIMING OF PLAN AND DEGREE OF CERTAINTY OF PURCHASE, WAVES 4–10

(Per cent of total number of plans in each category)

Likelihood of Buying	Timing Given (1)	Timing not Given (2)	Total (3)
Sure	61	30	49
Almost sure; likely	37[a]	33	35
Not sure; just thinking about it	33[b]	30	31
All plans	55	32	41

[a] Based on 8 plans.
[b] Based on 3 plans.

or so. I'm doing pretty well these days, so I might as well get a new car this year. As soon as I can save up enough for the downpayment, I'll trade in my old car." In this case, the purchase of a new car is a certainty—at least it would be reported as such—yet the timing of the purchase would be in doubt.

Used in conjunction with each other, therefore, these two factors may provide some means of distinguishing a priori between purchase plans that are likely to be realized and those that are not.[18]

Does fulfillment of durable-goods purchase plans appear to be more characteristic of certain types of goods than of others? Despite the small sample sizes involved, it does appear that the degree of realization of plans differed, for this sample, by type of good. Irrespective of whether the timing of the purchase is known, the degree of fulfillment of clothing purchases was significantly above the average as well as above that for furniture and for appliance purchases. Whether this difference is attributable to the commodities themselves or whether it is a manifestation of some other factor—such as higher contemplated expenditures for the furniture items than for the clothing items—could not be determined from these data. However, some evidence in favor of the former interpretation is provided by the existence of the same tendency in the case of minor plans for the realization of clothing plans to exceed by far—46 per cent as against 25 per cent—that of furniture purchase plans.

Characteristics of Those Fulfilling Plans

Contrary to the findings with regard to purchase plans, little relationship was detected between degree of fulfillment of purchase plans and the four socio-economic characteristics on which data were obtained—age, occupation, income, and family size. In no case was the proportion of purchase plans fulfilled by any group significantly different from the average. In a few instances, there is a clear tendency for the degree of fulfillment to be associated in a particular way with a characteristic. Although not statistically significant (judging by chi-square tests), these instances are mentioned here as suggestions for further study.

One rather pronounced tendency was for such relationships to differ

[18] Respondents were also questioned regarding their knowledge of the name of the store where the planned purchase might be made. This factor, however, did not correlate very closely with the realization of purchase plans and proved a poor substitute for knowledge regarding the timing of the purchase or degree of certainty. Such a question is undoubtedly too stringent: a high proportion of plans for which a place of purchase was given were consummated, but on the other hand a high proportion of plans for which the place of purchase was uncertain were also consummated.

according to whether the timing of the plan was or was not given. In the latter case, no relationship at all was evident between degree of fulfillment of plans and any of the socio-economic characteristics. Those plans for which the timing was given, however, were characterized by a higher rate of fulfillment among middle-income families (income between $2,600 and $6,600) and among families with older heads. Professional and managerial families also had a somewhat higher rate of fulfillment (62 per cent) of major plans than the average.

A striking, and not unexpected, difference between purchase record-keeping and nonpurchase record-keeping families lay in the proportion of purchase plans reported with time of purchase given. The contemplated time of purchase of more than half of major purchase plans mentioned by record-keeping families was known, but the same was true of only one-third of the purchase plans reported by non-record-keeping families—a statistically significant difference at the .05 probability level. For this reason the proportion of all major purchase plans fulfilled by record-keeping families exceeded that of other families.

Relatively few clear relationships between degree of fulfillment of purchase plans and economic and political considerations were uncovered in this study. A major reason for this may well have been the small sample sizes involved. This limitation was of particular importance in the present case because each of the questions on this subject was asked in only a few waves. (From this point of view, it would have been wiser to restrict the questions asked on this subject and to utilize exactly the same questions on every wave—assuming that the respondents would have endured it.)

Judging by Table IX, showing the proportion of major plans ful-

TABLE IX.—PROPORTION OF MAJOR PLANS FULFILLED, BY PRESENT ECONOMIC STATUS OF RESPONDENTS

(per cent)

Economic Status	Change in Income, First Half Last Year to First Half This Year[a] (1)	Change in Liquid Assets[b] (2)	Earnings Relative to Expectations[c] (3)	Ability to Buy Durables[d] (4)
Better (More)	52	64	48	64
Same (No change)	38	46	44	42
Worse (Less)	55	50	35	50

[a] Based on 144 plans.
[b] Based on 126 plans.
[c] Based on 139 plans.
[d] Based on 145 plans.

filled by groups of different present economic status,[19] the degree of fulfillment was higher for those who felt that their financial position had improved over the past year than for others. The differences are not statistically significant but are sufficiently uniform—substantial for three out of the four questions—to lend them meaning.[20]

A higher proportion of plans were fulfilled by those expecting either higher incomes or improved ability to buy goods than by those expecting no change in either of these factors. As between those expecting improved positions and those pessimistic about their future financial position, however, the evidence was mixed.

Relatively little information was obtained on the relationship of degree of fulfillment to respondents' expectations about inflation, partly because of the small sample size and partly because questions on this subject were not asked frequently enough to offset the former handicap. Price expectations were obtained from respondents on all waves with regard to different types of durables, but the evidence was inconclusive. Analysis of this data revealed that only for appliances did degree of fulfillment (of major plans) appear to be affected by price expectations, being higher for those expecting higher future prices than for those expecting stable prices.

Contrary to what was observed with regard to actual purchases and purchase plans, the respondents' outlook on the general world situation did not appear to bear much relationship to degree of fulfillment of purchase plans. The degree of fulfillment was much the same irrespective of whether the respondents expected our relations with communist nations to improve or deteriorate; did or did not think a third world war was likely; or thought that the fighting in Korea would soon end.

IV. *Implications of the Results*

In this concluding section we shall restate the findings in the foregoing sections in the form of a series of (tentative) hypotheses regarding consumer behavior. This fulfills a double objective. It indicates the nature of the inferences regarding consumer behavior that could be

[19] In the case of fulfilled plans, the answer on present economic status was taken as that given at the time the plan was fulfilled. For other plans, the most usual answer on present economic status was employed. The same procedure was followed on the expectations questions discussed in the remaining paragraphs of this section.

[20] Much the same finding was reported by Lansing and Withey, *op. cit.*, pp. 38-42. In addition, from a statistical point of view the comparison between those reporting themselves better off and those reporting no change is more reliable in this case than any comparison involving those worse off. The reason for this is that the financial position of few respondents at the time the survey was made had declined. As a result, the percentages in this category are based on a much smaller number of observations than the others—generally between 10 and 20 plans as against 50 to 75 plans in each of the other categories.

drawn if the findings were fully established and at the same time it serves to stress aspects of the subject on which future inquiry would seem most likely to be fruitful.[21]

1. Planning is not uniform among population groups. On the basis of this study, the following types of families would seem to have the most purchase plans (of one month or longer in length): (a) Families in middle-income brackets, with purchase planning being more common among upper-income than lower-income families; (b) Professional and managerial families; (c) Younger families; (d) Families who feel that their ability to buy durables has increased; (e) Families who are optimistic over their financial position; (f) Families fearing inflation; (g) Families apprehensive of the international situation (and therefore fearful of shortages and/or rising prices as a result).

2. The population groups doing the most purchasing are also the ones doing the most planning.

3. Large items are more likely to be planned than small ones. At least this would seem to be the case when plans of less than one month are excluded.

4. Most durable goods purchases costing $25 or more are planned at least one month in advance. This is also true of a significant proportion of less expensive durable goods purchases.

5. The planning horizon for durable goods lengthens with the size of the purchase. For minor purchases it would seem to be generally less than six months.

6. The planning horizon varies by type of good. In this study, furniture and appliance purchases were planned, on the average, considerably longer than clothing purchases. It is suggested that the planning horizon of a durable good may be related to the degree of family participation in its use.

7. The planning horizon of durable-goods purchases rises with income level. This generalization may not be valid in the form of a continuous (monotonically rising) relationship, and it may in fact be largely a manifestation of the fact that the size of a given purchase rises with income level.

8. A large proportion of all durable-goods purchase plans leading to expenditures of $25 or more are fulfilled, and these fulfillments constitute more than half of all durable-goods purchases of this magnitude.

9. The great majority of durable-goods purchase plans that are fulfilled are fulfilled not longer than one month after their scheduled date, where a date is given. In this study, the percentage was 74 for major

[21] Some of these hypotheses, such as the first and third, have already been advanced by George Katona, *op. cit.*, Ch. 5.

plans. It would be somewhat smaller if allowance were made for plans fulfilled beyond the period of observation.

10. The degree of fulfillment of purchase plans varies by type of good. Two possible explanations might be offered for this phenomenon, namely, price differences (*e.g.*, furniture purchases may have been more expensive than clothing purchases), and differing degrees of family use of the good.

11. The type of purchase plan most likely to be fulfilled is that for which (a) the time of the purchase has been scheduled, and (b) the purchase is believed likely with a high degree of certainty.

12. The degree of fulfillment of major purchase plans is influenced in part by one's present and expected future financial position. The chances of a major purchase plan being fulfilled were found to be better than average if the respondent improved his financial position over the past year or expected an improvement in financial position during the coming six months.

It deserves to be emphasized once more that this was only a case study of limited scope and that the findings can not be considered definitive. In addition to the limitations of the consumer panel method, the analysis relates to unit expenditures (and plans) and many of these results would be altered substantially if a similar study were carried out in terms of dollar expenditures—a highly desirable project for the future. An even more basic consideration is the extent to which the findings may have been influenced by the special set of economic conditions prevailing during the period of observation.

Appendix

A. *Effect of Panel Operation on the Findings*[22]

Effect of nonresponse. Because of the large number of noncontacts, the sample was somewhat biased with respect to the population, a bias which lay in overrepresentation of larger-size families, families with younger heads, and families whose heads were professional, managerial or skilled workers. However, no changes of any consequence occurred in the distribution of the sample by the population characteristics studied over the length of the operation.

Refusals were higher among one- and two-member families, the highest and lowest income groups, families with heads over 50 years of age, and families with heads in manual occupations. In general, these were families that reported fewer purchases than other families though not fewer purchase plans. This raises the possibility that the degree of fulfillment of purchase plans may have been overestimated by the panel operation (or that such families were less cooperative in reporting purchases).

Effect of panel membership. Purchases reported per family increased rela-

[22] For further details, see R. Ferber, *op. cit.*

tive to plans reported with length of panel membership. Hence the effect of the panel operation may have been to understate fulfillment of purchase plans as a result, presumably, of omission of more purchases than plans in the initial stages of panel membership.

B. *Wording of Expectations and Budget Questions*

Are your liquid savings (cash plus money in bank plus U. S. bonds) now different than they were a year ago? If yes, how? (Waves 1-3.)

Do you feel that you are better or worse able to buy durable goods now than, say, a year ago?[23] (Waves 1-6.)

Has your over-all family income in the first six months of this year been more, less, or about the same as your income in the first half of last year? (Wave 5.)

How about your savings? Have you saved more, less or about the same in the first six months of this year as in the first half of last year? (Wave 5.)

As things have turned out, are your family's earnings more, less, or about the same as you expected at the beginning of last year? (Wave 10.)

In the coming six months, do you expect your family income to be higher, lower, or about the same as in the last six months? (Waves 1-6.)

Do you feel that your financial ability to buy durable goods is going to increase, decline or not change over the next six months? (Waves 7-9.)

How great is the danger of inflation right now? (Wave 7.)

Do you feel that people buying heavy durables like furniture, appliances, and cars now, are likely to get more or less for their money than they are later on? (Waves 7-8.)

In view of recent events, how do you think—(clothing, furniture, car, appliance) prices will go in the next five to six months? (Waves 1-10.)

Is there anything that you believe will be hard to get during the next six months because of the mobilization program? (Waves 1-7, 10.)

Do you expect our relations with the Communist nations to get better, worse, or not change during the next six months? (Waves 2-4, 7.)

Do you think that current armistice talks between the U.N. and Communist representatives in Korea will end the fighting over there? (Waves 5-6, 8-9.)

Does your family keep systematic records of (a) All purchases? (b) Bigger purchases only? (Waves 4-9.)

[23] Strictly speaking, this question relates to the respondent's relative ability to buy and not necessarily to ability to buy "now." Under the economic conditions prevailing at the time the survey was conducted, however, the two concepts appeared to amount to much the same thing.

INCOME SHARES OF UPPER INCOME GROUPS IN GREAT BRITAIN AND THE UNITED STATES

By ALLAN M. CARTTER*

The recent National Bureau publication by Professor Kuznets, *Shares of Upper Income Groups in Income and Savings*,[1] has provoked considerable comment among economists and laymen alike. Perhaps most of us would like to accept his statistical findings as final proof of Marshall's hopeful thesis of nearly seventy years ago that "the social and economic forces already at work are changing the distribution of [income] for the better; . . . they are persistent and increasing in strength; and . . . their influence is for the greater part cumulative."[2] The National Bureau study has clearly indicated a marked decline in the personal income share of the top 5 per cent of this country's population in recent years "which for its magnitude and persistence is unmatched in the record. . . .[3] However, it is worth noting that Kuznets himself has been cautious in drawing conclusions from this wealth of statistical material.[4] With this in mind, it is proposed here to raise two questions in assessing the apparent decline of upper-income shares: (1) Is the decline of the income share of upper-income groups a unique experience of the United States? (2) To what extent has the disposition of corporate profits affected these income shares? In an attempt to answer these questions the first section of this paper will point up some of the similarities and difference of the British experience as compared with that of the United States. The second section is intended to show that (a) there has only been a relatively small decline in the *private* income share of upper-income groups in recent years, and (b) that the marked decline in *personal* income shares can be largely attributed to changes in corporate income positions and dividend policies.

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[1] New York, 1953.

[2] *Principles of Economics*, 8th ed. (New York, 1948), p. 712. I have substituted the word "income" for "wealth" in the original quotation, for Marshall uses them almost interchangeably in this section. The quotation is in summary of Book VI, "The Distribution of the National Income," and Marshall alternates between the phrases "national income," "wealth," and "national dividend" freely in the same context.

[3] *Op. cit.*, p. xxxvii.

[4] *E.g., ibid.*, pp. xxvii-xxix, and xxv-xli.

I. *Comparison of Britain and the United States*

The annually published British income tax data are not as complete as those for the United States, but the Inland Revenue reports do give the family classification of taxpayers by size of income for 1937-38 and 1948-49.[5] These data are sufficient to determine the income shares of the upper 5 per cent of the population.

Adopting Kuznets' method, the per capita income of each income and family-size grouping is determined by dividing the size of family for each grouping into the average income for the appropriate income class as given in the Inland Revenue income tax tables. Each grouping is then ranked by its order class of per capita income (from the highest income). Adding cumulatively the number of persons and their incomes, one can then cut off the cumulation at points which represent 1 per cent, 3 per cent, 5 per cent, etc., of the total population and find the corresponding amount of income received by these percentile classes.[6]

Table I indicates the results found by applying this method to the British material, using three income variants.[7] The share of the top 5 per cent in the distribution of personal income (as defined for tax purposes) declined 11.3 per cent from 1937-38 to 1948-49, the largest drop being recorded by the top 1 per cent. Somewhat surprisingly the share of the 2nd and 3rd percentiles actually increased. Looking at the disposable income variant the percentage decline of the top 5 per cent is understandably greater and in this case even the 2nd and 3rd percentiles succumbed to the weight of income taxes. For the third income variant, corporate savings (undistributed corporate profits net of profits tax) have been imputed to income grades on the basis of shareholdings and added to the disposable income of each grade. In this latter case the percentage decline in upper-income shares is considerably less than for disposable income alone.

In Table II the British and American findings for approximately similar years are compared,[8] and it is apparent that the decline in the income share of the top 5 per cent has been considerably less in Britain

[5] Reports of the Commissioners of Inland Revenue, *Cmd. 6769* (Mar. 1946) and *8052* (Oct. 1950).

[6] For a more detailed explanation of methods, see Kuznets, *Shares*, pp. xxix-xxv and Pt. 4.

[7] Income variant I in Tables I-III, which is labelled "Personal Income," is the same as Kuznets' "basic variant" (*i.e.*, personal income reported for tax purposes). See Kuznets, *Shares*, pp. 279-85.

[8] The British findings from Table I; the American figures from Kuznets, *Shares*, Tables XI, CXX and CXXII. In the case of the basic and disposable income variants for 1946, Table XI and Tables CXX and CXXII do not quite agree; in this instance I have used the figures from the latter two tables. Since the British data were only available for the 1937-38 and 1948-49 years, similar years have been chosen for contrast with the American experience. 1946 is included because some of the Kuznets' figures end with that year.

TABLE I.—INCOME SHARES OF UPPER INCOME GROUPS IN GREAT BRITAIN 1937–38 AND 1948–49[a]

(per cent of total income)

Percentage Band	1937–38	1948–49	Change as Percentage of 1937–38
Personal Income			
Top 1 per cent	17.5	13.5	−22.9
2nd & 3rd	8.4	9.0	+ 7.1
4th & 5th	5.2	5.1	− 9.9
Top 5 per cent	31.1	27.6	−11.3
Disposable Income			
Top 1 per cent	11.6	8.0	−31.0
2nd & 3rd	8.1	7.0	−13.6
4th & 5th	4.7	4.2	−19.6
Top 5 per cent	24.4	19.2	−21.3
Disposable Income Plus Corporate Saving			
Top 1 per cent	14.4	13.2	−8.5
2nd & 3rd	8.2	7.9	−3.7
4th & 5th	4.6	4.3	−6.5
Top 5 per cent	27.2	25.4	−6.6

[a] The writer has prepared a more detailed appendix with tables indicating the manner in which these figures were derived, and those for the remaining tables and graphs. Because of limitations on space this is not reproduced here. The appendix has been mimeographed, however, and the writer will be glad to forward a copy to anyone who is interested in the basic data. Address: A. M. Cartter, Dept. of Economics, Duke University, Durham, N. C.

regardless of the income variant used. One of the most interesting conclusions is that not only have disposable incomes of the top 5 per cent declined less in Britain than in the United States, but also that the top 5 per cent in Britain still retained a larger percentage of total disposable income than did their American counterparts. The relatively

TABLE II.—INCOME SHARE OF TOP 5 PER CENT OF POPULATION: GREAT BRITAIN AND UNITED STATES

(per cent of total income)

Income Variant	Great Britain			United States				
	1937–38	1948–49	Percentage Decline	1937	1946	1948	Percentage Decline to	
							1946	1948
I. Personal Income	31.1	27.6	11.3	23.8	18.2	17.6	23.5	26.0
II. Disposable Income	24.4	19.2	21.3	27.1	17.7	n.a.	34.7	n.a.
III. Disposable Income plus Corporate Saving	27.2	25.4	6.6	27.1	20.2	n.a.	25.5	n.a.

smaller decline is largely explained by the fact that before the war income tax rates were already much higher in Britain than in the United States. For example, in 1937 the average tax yield on total personal income was about 4 per cent in the United States, and nearly 10 per cent in Britain. The fact that the top 5 per cent of persons in Britain retained a larger percentage of total disposable income is in part due to the much higher share of personal income (before tax) formerly received by this upper-income group (*e.g.*, 31.1 per cent in Great Britain in 1937-38 as contrasted with only 23.8 per cent for the top 5 per cent in the United States in 1937).[9]

Another conclusion which might be drawn from Table II is that taxation was about as important an equalizer in Britain as were "natural" forces. The "natural" decline in the income share of this group (*i.e.*, the decline in original incomes not directly attributable to taxation) was 11.3 per cent in Britain, while the decline was almost twice as great in the case of post-tax income. In the United States, on the other hand, the decline in the post-tax income share of this group (to 1946) was only about half again as great as the percentage decline in pretax income.

II. *The Importance of Undistributed Profits and Corporate Dividend Policy*

It was apparent in Table II that the decline in income shares of upper-income groups in the 1937-48 period was not limited to the United States alone, although the percentage decline was considerably greater in Britain. Two questions may be asked in regards to this conclusion: (1) what has caused this decline, and (2) can it be expected to continue (or at least not reverse itself)? Kuznets comments that "the recent decline . . . obviously has various causes. The most prom-

[9] Part of the difference between the two countries may also be attributable to differences in family size. For example, the Federal Reserve Bulletin's "1948 Survey of Consumer Finances" gives the average size of the American consumer unit as 2.8 persons, while the similarly defined British "tax family" is only 2.1 persons. If this is actually the case in upper income groups, with larger family units in the United States, the top 5 per cent of persons ranked in order of per capita income would include roughly 25 per cent fewer heads of households (and presumably proportionally fewer income earners) than in Britain. This problem arises not only when comparing two countries, but also over time within any country. This is one difficulty with per capita income measures, for they are based on two important variables, income and family size. For example, if all dependentless married persons in the United States with incomes above $6,000 decided to have a child or to support a relative, and if the size of families in the case of other income groups remained unchanged, the income share of the top 5 per cent of persons in the United States would immediately fall by almost 20 per cent. It would be interesting to know if this factor contributed to the decline in the personal income share of this group as indicated by Kuznets.

inent are the reduction of unemployment and the marked increase in total income flowing to lower income groups; shifts in the saving and investment habits of upper income groups which may have curtailed their chances of getting large receipts from successful venture capital and equity investments; lower interest rates; and steeper income taxes."[10] Two items not mentioned, although of major importance,

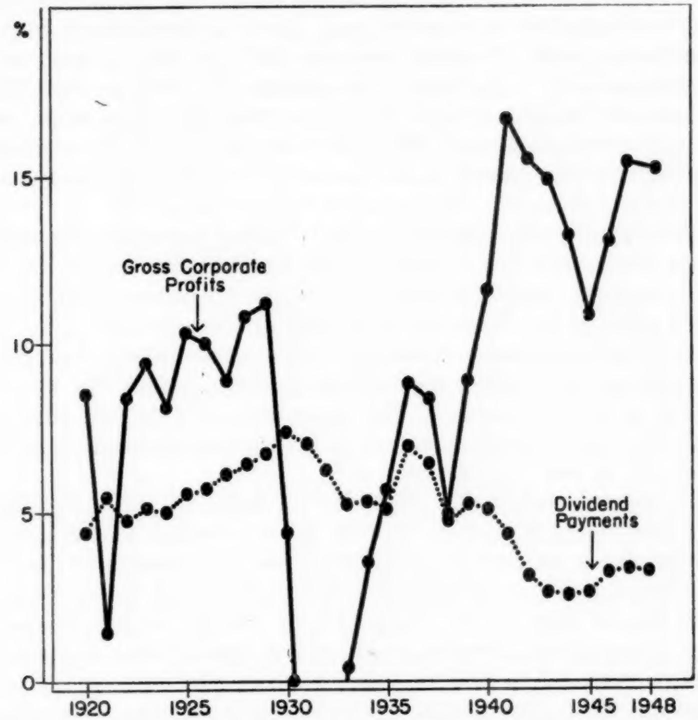

FIGURE 1. GROSS CORPORATE PROFITS AND DIVIDEND PAYMENTS AS PERCENTAGES OF NATIONAL INCOME: UNITED STATES, 1920-48

were the impact of corporate profits taxes and the dividend policy of the corporate business sector. These two, it will be indicated below, were almost as important as all the above items added together.

Figure 1, based on national income estimates,[11] traces the movement of gross corporate profits (before tax) and dividend payments

[10] Kuznets, *Shares*, pp. xxxvii-xxxviii.

[11] For period 1919-28, see Kuznets, *National Income and Its Composition, 1919-38* (New York, 1941), Vol. I, Table LIX, p. 326; for 1929-48, see *Surv. Curr. Bus.*, July 1953, XXXIII, 10-11, Table I.

to the public in recent years in the United States. Since approximately 1940, dividends have behaved in a most unprecedented manner. From 1921 to 1940, dividend payments accounted for at least 5 per cent of national income (with the exception of only two years: 4.7 per cent in both 1921 and 1938); but from 1942 to 1948 they averaged only 2.9 per cent of national income. This sudden decline in dividends relative to national income occurred just at the time when pretax corporate profits were climbing to a record peak. Even as a percentage of post-tax corporate profits, dividend payments declined from 72 per cent in the 1920's to only 37 per cent in the period from 1942 to 1948. Since dividends are more unequally distributed than any other major component of personal income, this radical change in corporate dividend policy has had a marked effect in diminishing the relative share of upper income groups in total personal income since 1941.

If we are interested only in income inequality from the viewpoint of persons as consumers, it is only necessary to look at personal and disposable incomes; but if, on the other hand, we are interested in inequality as it arises in the market from the play of economic forces, we must look at all private incomes before they are subjected to tax. To measure this economic inequality, undistributed profits before tax must be added to personal incomes.[12] The imputation of corporate profits to stockholders, however, is an act which gives cause for some theoretical qualms for at least two reasons.

First, information on the ownership of stocks by income grades is not perfect, since it largely depends upon sampling of tax returns. However, in the succeeding paragraphs Kuznets' estimates of the share of the top 5 per cent in total dividend receipts will be used for the United States, together with estimates by the present writer for the British case.[13] Both estimates are subject to some margin of error, but should be sufficient to give a roughly accurate picture.

Second, there is some dispute as to whether or not gross undistributed profits can be properly allocated to stockholders as imputed income. Kuznets doubts the validity of imputing *net* undistributed profits to shareholders, and presumably would be even more hesitant about

[12] Kuznets added corporate savings (post-tax undistributed profits) to disposable income, commenting that "the effect on the decline in shares of upper income groups since 1939 is moderate" (*Shares*, p. 38). Adding corporate savings only reduced the decline in the share of the top 5 per cent by one-fourth, but had corporate savings been added to personal income shares, the decline from 1939 to 1946 would have been reduced by almost one-half. This would seem a rather major change.

[13] See Kuznets, *Shares*, Table CXXIII, p. 649, for share of top 5 per cent in various types of income in this country. For Britain, see Cartter, "A New Method of Relating British Capital Ownership and Estate Duty Liability to Income Groups," *Economica*, Aug. 1953, XX, 247-58, and *The Redistribution of Income in Post-War Britain* (New Haven, 1955), Ch. 11.

including corporate profits-tax liabilities as imputed income.[14] While this is undoubtedly correct when viewing persons as consumers (or disposers of income), the position is taken here that to measure the inequality of income arising out of the sum of market-determined factor rewards it is necessary to include all imputed income. Therefore, even corporate profits tax liabilities must be included if these taxes are paid out of earnings which, in the absence of this tax, could have been paid out in dividends.

At this point it may be argued that some of the profits tax may not actually be paid out of stockholders' claims, but is perhaps shifted either forward to consumers or backwards to wage-earners or other factors, so that gross undistributed profits are always inflated by these shifted amounts. Since there exists this uncertainty as to the precise

TABLE III.—INCOME SHARE OF TOP 5 PER CENT OF POPULATION IN PERSONAL AND PRIVATE INCOME: GREAT BRITAIN AND UNITED STATES

(per cent of total income)

Income Variant	Great Britain			United States		
	1937–38	1938–39	Percentage Change	1937	1948	Percentage Change
I. Personal Income	31.1	27.6	−11.3	23.8	17.6	−26.0
II. Private Income (Assumption 1)	34.3	36.0	+ 5.0	25.0	23.7	− 5.3
III. Private Income (Assumption 2)	31.9	30.9	− 3.1	24.2	21.1	−12.8

incidence of the profits tax, pretax undistributed corporate profits will be added to personal incomes in Table III on the basis of two different assumptions: (1) that no part of the tax is actually shifted; and (2) assuming that Musgrave's "standard case" is correct, and that about 45 per cent of profits taxes are shifted to consumers and wage earners, the remaining 55 per cent falling on stockholders' claims.[15] Under assumption 1, gross undistributed profits are imputed to shareholders, and under assumption 2 corporate savings plus 55 per cent of the profits tax liability are so imputed, percentage shares now being determined with reference to a new aggregate income.

Table III indicates the percentage share of the top 5 per cent in total private income (*i.e.*, personal income plus undistributed corporate profits) under these two assumptions. The picture is quite different for private income than for personal income. While the personal income

[14] See *Shares*, pp. 37-38.

[15] R. A. Musgrave, et al., "The Distribution of Tax Payments by Income Groups," *Nat. Tax Jour.*, Mar. 1951, IV, 1-53.

share of the top 5 per cent in Britain declined roughly 11 per cent in this period, the share of private income increased 5 per cent if we assume no tax shifting, and declined only 3 per cent allowing for the shifting of almost one-half of the profits tax. In the United States the very marked decline of 26 per cent in the personal income share of this group from 1937 to 1948 dwindles to about 5 per cent under the former assumption, or almost 13 per cent if we assume partial shifting of profits taxes.

The conclusion from Table III, comparing 1937 and 1948, is that the decline in the income share of the top 5 per cent of the population in both Britain and the United States has been moderate (and possibly nonexistent in Britain) when account is taken of the distribution of all factor rewards before tax. Kuznets' conclusion that "In trying to describe the average level and structure of upper group shares we are confronted by the fact that they have declined drastically since 1939,"[16] does not apply if we impute pretax profits to shareholders.

However, if we go back a decade to 1929 a sharp downward adjustment of the level of upper-income shares in private income is apparent. In Figure 2 the percentage share of the top 5 per cent income group in personal income and private income (based on assumption 1 above) is shown for the United States for the years 1920-48. The personal income share was relatively stable from 1920-1939, the sharp downward step occurring in the years 1940-44. The private income share, on the other hand, drifted upwards during the 1920's, but never fully recovered after the sharp dip in 1930-32. Comparing the 1940-48 period with the decade of the 1920's, the personal income share of the top 5 per cent declined 25 per cent (6.2 percentage points) while the private income share dropped just under 11 per cent (3.1 percentage points). If we fit a trend line (least squares) to the data for the two different measures, the slope is substantially less for the private-income-share series (−.113) than for the Kuznets' series (−.295).

Economists used to assume that income inequality increased during prosperous years and decreased during depressions, due to the relatively sensitive nature of property incomes. We might conclude from the findings above that this still tends to be true if we observe variations in shares of private incomes as determined by the market. However, the increased importance of the corporate business sector in the economy, and the post-1938 tendency of corporations to pay out a smaller percentage of profits in dividends, is apparently having the opposite effect on the distribution of personal income. The modern corporation appears to be acting (albeit unintentionally) as a major

[16] *Shares*, p. xxxv.

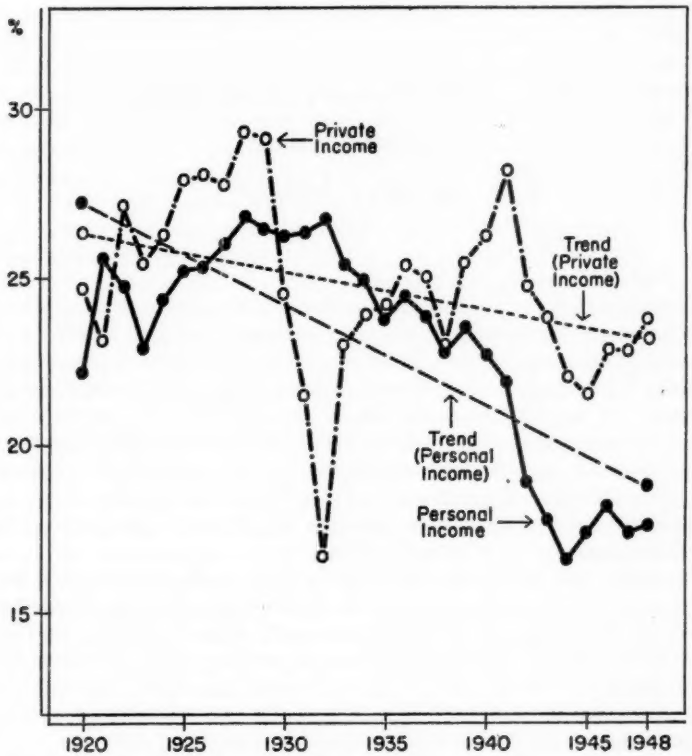

FIGURE 2. PERCENTAGE SHARE OF TOP 5 PER CENT OF PERSONS IN PERSONAL INCOME AND PRIVATE INCOME: UNITED STATES, 1920-48[a]

[a] Trend computed by least squares method. The origin is 1934; the slope of the trend line (the value of b) is —.295 for Personal Income and —.113 for Private Income. The trend obviously cannot be linear over long periods of time, but this shows the major difference in the trend of upper income shares based on the two different income series.

force for income stabilization. But if corporations were to change their minds and pay out all net profits in dividends, the dramatic decline in personal income shares illustrated by Kuznets would be substantially diminished. For example, if 100 per cent of post-tax profits had been paid out in 1939 and 1948, the decline in the share of the top 5 per cent of the population would have been only 8½ per cent rather than 25 per cent. If we add to this the possibility of a reduction in profits tax rates, we would have to conclude that the post-1939 decline in upper income shares in this country not only could be reversed over-night, but that it could almost be wiped out without any change in the other causal factors listed by Kuznets.

FULL EMPLOYMENT—1954 MODEL

A Review Article

By PAUL J. STRAYER*

The commitment of the federal government "to use all practicable means . . . to promote maximum employment, production, and purchasing power," the establishment of the Council of Economic Advisers and the creation of the Joint Committee on the Economic Report have been widely hailed as indications of the assumption of federal responsibility for general economic welfare of the nation. The support given by President Eisenhower to the Council and his request for modifications in the original Act designed to strengthen the Council administratively indicated the validity of the earlier premise that the commitment to economic stabilization transcended political boundaries and was on a permanent basis.

This article will review the three documents of the current year that are issued annually under the terms of the Employment Act: the *Economic Report of the President,* the *Hearings before the Joint Committee on the Economic Report* and the *Report of the Joint Committee on the Economic Report,* all published between January 28 and February 26, 1954. A review of these documents affords an opportunity to appraise current attitudes within the executive and legislative branches of government and also the prevailing views of both professional economists and interested citizen groups. Although these statements focus on the current economic outlook and administration policy recommendations they reveal the longer-range views of the interested parties. It is the latter aspect of these reports that will be emphasized. As this is written in August any attempt to exercise the role of hindsight critic of the forecasts and policy recommendations for the short run is both premature and, in view of the still uncertain outlook, likely to prove wrong. Perhaps the best characterization of what has happened since the time of the reports is to say that neither the extreme optimists nor pessimists have been correct. No cumulative downward spiral has been experienced nor has a decided upward trend set in as suggested by those who characterized the situation in the winter months as a rolling readjustment or at worst a minor inventory recession.

I. *The Economic Report of the President*

The *Economic Report of the President* may be favorably compared with previous editions. It is encouraging to find a clear statement of the necessity of maintaining a flexible policy designed to be adaptable to new situations as

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they arise, and an administration position that for the first time places real emphasis upon the desirability of price stabilization. In sharp contrast to previous Reports the positive role that must be played by fiscal and monetary policy in achieving the objectives of the Employment Act is made clear. This position is carried over into major recommendations in the fields of taxation, credit policy, and public-works planning and preparedness. The Council should also be complimented on the improvements they have made in the coverage and detail in the statistical supplement of the Report. Were it not for the omission of the Nation's Economic Budget this would be the most useful statistical supplement yet prepared.

Several innovations in the new report deserve separate mention. One is the return to the original practice of presenting to the Congress a single report of the President, not a brief presidential report combined with a longer report of the Council. A second is the maintenance of primary focus upon the economic stabilization program of the government and the avoidance of the tendency, so pronounced in the earlier administration, of including all administration reform measures within the *Economic Report*.

In spite of the many favorable features of the Report it has one glaring weakness. This is the unwillingness of the President and his Council to project into the future the levels of income, employment and production that must become the benchmarks for stabilization policy. Some generalizations about the necessity of continued growth are to be found, but the failure to make these generalizations concrete and the frequent refuge taken in comparisons with earlier years without adjustment for normal growth factors, such as increases in productivity or population, greatly detract from the force of the document. There is reason to have some sympathy with the Council and the Executive in what must have been a conscious decision to abandon the projections of the Nation's Economic Budget type. In many persons' minds these projections are associated with a degree of government intervention that runs directly in opposition to the basic economic philosophy of the administration. Model projections also invite reaction when not realized and may have a tendency to lead to overcompensation that will result in an inflationary bias. The failure of the forecasts following the second world war can also be cited in defense of the Council. However, the Employment Act of 1946 requires that the President's Report should set forth "the levels of employment, production, and purchasing power obtaining in the United States and such levels needed to carry out the policy declared in section 2" (section 2 being the general declaration to use all practicable means to promote maximum employment, production, and purchasing power). It must be concluded that something more than is found in the 1954 Report is required. This fact is noted by many witnesses in their testimony before the Joint Committee on the Economic Report and by the Committee itself which has had such projections prepared and added them as an appendix to their report.

The issue involved is an important one, and it must be faced directly if it is to be resolved. One aspect of the issue is the compatibility of price stabilization with employment and production maximization in the short run. There is evidence between the lines of the Report that A. G. Hart's dilemma of

the whistle indicating need for action to reduce unemployment blowing at the same time the gong rings to indicate the need for restrictive action to check inflation is very much on the mind of those who wrote the Report. The earlier mentioned emphasis upon the need for price stabilization and the desirability of flexibility in government programs and policies are the major ways in which the Report takes up this issue. Until this issue is resolved there is danger that pressures from the public and interest groups will work against price stabilization and the preservation of the maximum influence of the mechanism of the market.

The major positive action recommendations of the Report are upon preparation for programs to be used at some unspecified time in the future and upon tax revision. Additional recommendations dealing with extension of unemployment insurance and old age and survivors insurance, housing legislation, and agricultural policy are properly related to the stabilization program of the administration but not central to it. In fact, the agricultural proposals which have finally been enacted in the form of more flexible support levels and an early adoption of a modernized parity formula, may even work against the short-run stabilization of employment and output. It is my conviction that this decision was a wise one but it thereby places the burden of proof upon the administration to otherwise strengthen its income-stabilization measures.

The importance given to the tax legislation in the *Economic Report* and by the administration in other presentations requires that some specific comment be made about it. The tax bill as proposed and passed gives something to almost everyone, including working mothers, the aged, fathers of college students who earn more than $600 in a year, persons who are willing to write irrevocable insurance policies for the benefit of their heirs, and all those who may benefit from an increased allowance for medical expenses, an extension of the already excessive depletion allowances given to extractive industry, and the lowering of individual income tax rates as the result of the automatic return to pre-Korean levels as provided by law. However, the important features of the act that affect business and individual spending or income concern depreciation, loss offsets and relief for dividend income.

As finally passed the provision for relief from double taxation of dividend income was so reduced that it cannot be of major significance except as a symbol of the attitude of the new administration. The *Economic Report* and other administration statements stress the need for relief of double taxation of dividend income and the danger of the reduction of investment incentives resulting from the current tax system. However, no convincing evidence was produced to support the contention that incentives have been reduced, and contrary evidence available in the record of investment and business activity over the years of high tax rates was ignored. The familiar double-taxation argument was not supported by any firm position on the question of the incidence of corporate taxes and was presented without regard to the windfalls in capital values that would accrue to current holders of common stocks. Certainly either the actual reduction of 4 per cent passed or the original 15 per cent measure proposed could not be expected to provide any major

stimulus to recovery in the short run. Both can be justified only as long-run reforms and this is less than certainly the area most in need of reform. Corporate managements are not going to be greatly affected in their investment decisions by a reduction in stockholder taxes, and the relief to the stockholder is not likely to increase greatly his private consumption or to affect markedly the supply side of the capital market. One must conclude that only as a psychological force is the dividend exemption a major factor. No one can deny that this may be potent in certain periods but it can as easily lead to a boom-and-bust movement as to a healthy stabilization of the economy.

The granting of greater freedom to take depreciation in the early years of the life of an asset and the extension of the loss carry-back to two years are both widely approved recommendations and should work in the direction of reducing risks to the investor and management as well as increase the equity of taxation. As of the moment, however neither of these provisions can do much to correct a temporary slump. The new more liberal depreciation policy will be restricted to new investment only, and the carry-back extension of one year can hardly be a major factor in current investment planning. If the general outlook is bad, a slight concession for losses cannot offset the general fear of excess capacity and price decline.

In much of the debate over the tax program as presented in the Report and elsewhere the argument ran that the Administration was following the "trickle down" theory of recovery and that the alternative was the stimulation of consumption demand. From this writer's point of view the administration position was one that in essence denied the need for immediate countercyclical action and concentrated on tax reforms that were in line with the promise of the Republican party for many years that the burden on the wealthy would be reduced and that whatever could be given in the way of tax reduction would be accomplished with the greater emphasis upon the business and upper-bracket taxpayer. The history of the tax bill has largely been ignored, but it should be remembered that the major features of the bill were developed before the recession was widely feared and were largely drafted in the Treasury under a Secretary who is generally conservative and devoted to the principle of the balanced budget. This leads to the conclusion that the Treasury program should be judged primarily as a long-run reform measure and only secondarily, if at all, as a stimulant to recovery. This way of viewing the program might again focus attention on the effectiveness of investment stimulation versus stimulation of effective demand for consumers' goods, but in the author's mind would properly lead to the conclusion that one could complement the other and that without sustained and growing consumer demand the most radical stimulation of investment would be of little value even in the short run. Another interpretation that makes some sense in light of the Report is the belief widely held within the administration that the indication of a favorable climate for private business can become an important positive influence upon investment. This is in line with the earlier mention of the possibility of psychological factors, but in the minds of some is believed to be even more important.

A final comment upon the President's Report cannot be avoided. This is

the Report's vaguely comforting but basically misleading characterization of the current recession as an "inventory recession." The implication drawn in various degrees from such a statement must be that in some way this has explained the reason for the depression and guarantees that it will all be over as soon as the excessive inventories are removed. The parallel with the 1948-1949 recession is also drawn with obvious comfort to all concerned. This writer would like to protest vigorously about this tendency. If inventories are excessive the reason for this fact must be explained. If reduction of inventories means fewer orders and weak markets this is reflected in employment, incomes and prices to varying degrees. Excessive inventories in the hands of producers or distributors may reflect excessive inventories in the hands of consumers. All in all this label is one that has surprisingly little meaning in terms of real analysis, yet it beclouds the real issues that confront the government official and the public at large. In the same category is the easy generalization that the volume of liquid assets will prove to be a stabilizing force. To some extent this may be true but a much more accurate picture would be given if the total asset and liability position of the consumer were used and more attention were directed to the concentration of liquid assets in the hands of the upper-income groups. The Council Report is no worse than most treatments of these subjects, but the profession should shun such statements with all possible vigor.

On balance the Report must be compared favorably with previous ones. It is free from so much of the exhortive language that marked the first reports of the Council. We may conclude that the continuance of this periodic report under the Employment Act is worth while. Differences in interpretation of economic trends and the economic outlook can easily explain the lack of positive program recommendations of a stimulating nature. The Report and its basic approach guarantee, however, that in the event of continued difficulty or growing unemployment the new administration will not be found lacking in willingness to commit the full resources of government to the task of stimulating the economy. Its unwillingness to act now or in January 1954 can be laid largely upon their basically optimistic appraisal of the economic outlook and their firm desire to avoid precipitate action that would multiply the problems of the functioning of the market as the allocator of resources and distributor of incomes both directly and as the result of price inflation.

II. *The Hearings before the Joint Committee on the Economic Report*

The *Hearings before the Joint Committee* follow the pattern of most Congressional Committees. Administration witnesses present the official line, minority Senators and Congressmen try to find the holes in the official line, interest groups have their day, the government experts present the facts in long supplemental statements packed with statistics and avoiding policy recommendations, and the whole is larded with the sort of humor that can pass for such only under the protection afforded by Congressional immunity. This particular set of hearings is noteworthy in only a few particulars. One on the adverse side is the obbligato played by Congressman Wright Patman on the theme of the perfidy of the bankers in general and the Federal Reserve in

particular. After the fifth extraneous diversion in this direction the author lost count but too much time was spent in the pursuit of the favorite whipping boy of the Congressman from Texas. His position is further clarified by his attack on the Council for including the stabilization of prices within the frame of reference of the Employment Act and his statement that "a stable price level is not a consideration written into the act at all" (p. 776).

Much more encouraging is the strong case made by Secretary Benson for the flexible support and modernized parity farm program, and the most effective testimony by Robert Moses on the need for more federal assistance for public works if they are to be effective in stabilization policy. Secretary Benson should be complimented for his frank, honest and generally well-reasoned presentation of the Administration program. Whether one agrees with him or not, it is refreshing in this politically sensitive area to find the parity formula subject to question and an intelligent recognition of the changes in agriculture due to technology and shifts in domestic and foreign demand. Robert Moses states in his typically forthright manner that he cannot believe that the need for government programs to stop depression has ended and that the claims of the Council based upon the backlog of state and local projects are much too optimistic. He says, "There is not a state, city or municipal subdivision in the country which can, on its own, finance a depression construction program sufficient to make a real dent in the employment problem. Federal assistance is required." He recommends that as much as two-thirds of the cost of an antidepression public works program should be borne by the federal government.

The other major sessions of the hearings of greatest interest were the one where the major farm, business and labor organizations had their say and the final day when three economists of diverse views held forth on the economic outlook in general. As might be expected the national labor groups found much to criticize in both the administration's analysis of the current situation and its program for the future. What impresses, however, is the quality of the analysis and debate as presented by the leading labor organization representives. Less expected is the division of the farm organizations two to one in favor of the administration's flexible support program.

The business organizations approved the analysis of the current outlook and policy recommendations of the administration. Both the Chamber of Commerce and the National Association of Manufacturers took the position that the current recession was a healthy readjustment and that left to itself the business community could quickly reverse the downward trend. The failure to look ahead at the expansion required to maintain full employment found in the President's Report is repeated by the two above-mentioned organizations. The testimony of the Committee for Economic Development is somewhat more positive than that of the other organizations and stresses the need for not only action to gain built-in flexibility in the budget but also action to gain greater administrative flexibility to counter any further swings in the cycle. Still favoring a maximum role for the market the CED places much more emphasis than the other business groups upon the positive role of government.

The final panel hearing devoted to the general economic outlook had as

members Martin Gainsbrugh of the National Industrial Conference Board, Alvin Hansen, and Edwin G. Nourse. All three took a somewhat more pessimistic view of the business situation than found in the President's Report. In part this reflects the lapse of time between the drafting of the Report and the February 18th date of the panel hearing. It may also reflect the fact that none of the members of this panel had to worry about the effect of their statements upon the general climate of opinion or the political situation. The differences among the panel increase as they discuss the policy recommendations of the President. Gainsbrugh confines his testimony almost entirely to the forecasting of the economic outlook and only by drawing some inference from his omission of a discussion of policy issues can anything be said about his policy views. This is surprising as the panel members had been asked to discuss the administration's program as well as the the economic outlook. Hansen's statement is of interest as he seems to be returning to his earlier position that there is need for continued government investment to fill the gap which will otherwise cause stagnation. He minimizes the danger of inflation and stresses the relative stability of the economy since the end of the immediate postwar inflation in 1948. A new element is added in his emphasis upon the need for flexibility in government programs to maintain an even keel. Need for bold action now is his theme and is well buttressed by an independent analysis of the required expansion if full employment is to be maintained. It is rather surprising to find Nourse the most pessimistic of the three in terms of the short-run outlook, although one feels he is returning to a more familiar position when he favors the use of exhortation to stimulate the business community and to bring about the required but still unspecified adjustments in price relationships. The difficulty of gaining effective control of the government program so that in magnitude and timing it is more nearly appropriate is also emphasized in his testimony.

Looking at the hearings as a whole one is impressed by the failure of the Joint Committee on the Economic Report to schedule even one day on the question of taxation and fiscal policy. The importance of the tax program in the thinking of the administration is reflected in the testimony of Secretary Humphrey and other administration witnesses as well as the frequent mention of this subject in the statements of other witnesses. The decision of the Committee to devote most of the hearings to the outlook in different sectors of the economy and the shortness of time may explain this omission, but hindsight suggests that a more productive set of hearings will be forthcoming in the future if this omission is not repeated. Since Congress is still divided on the specific questions of policy that it must resolve if effective countercyclical action is to be taken, there cannot be too much discussion of the specific issues of policy such as taxation. The other major observation is that there seems to be very little that is new or even provocative in the 899-page hearings. In large measure the fault is the economists', but it is the author's view that should fewer panels be called and more time devoted to the exploration and debate of policy issues the chances of new and useful material being produced would be enhanced. At no time throughout the hearings are the choices of

policy really presented systematically and debated. The ever-present danger that major changes in the economy will come about without any consideration of the alternatives open in the realm of public policy which might alter the course of events continues unabated under such a review of the economic situation as conducted by the Joint Committee.

To inject a more approving note in this appraisal of the hearings, one can not help but be impressed by the relatively high level of economic understanding of the members of the Committee. There is still much room for improvement in this regard but in contrast to the behavior of other Congressional committes the level of the discussion is high.

III. *Report of the Joint Committee on the Economic Report*

Perhaps the most significant feature of the *Report of the Joint Committee* is that it takes a much more positive position than the *Report of the President* about the need for action to maintain full employment now. In contrast to some of the earlier Reports the majority and minority are in substantial agreement. This is true in spite of the supplemental statements included by the Democratic members. In view of the failure of the President's Report to recommend any major attack on the depression it is not surprising to find the Joint Committee demanding that the Executive be bolder and go further in the direction of the use of governmental powers. This emphasizes both the increased conservatism of the executive and the increasing economic interventionism of Congress in recent years.

The specific criticisms of the President's Report made by the majority are also vigorous. They include a notation of the failure of the President to include the levels of employment, production, and purchasing power required to assure maximum employment in the future and a much qualified opposition to the institution of flexible farm supports now.

On the positive side the Joint Committee Report makes clear the responsibilities of government and the desirability of full use of governmental powers to prevent or alleviate depression. This goes so far as to include specific approval of unbalanced budgets. The Joint Committee also takes a stand for much more generous use of federal credit or grants to make effective a countercyclical public works program. Finally, the majority notes that it may well be necessary to give more tax relief to the lower- and middle-bracket taxpayer than included in the President's recommendations.

An encouraging feature of the Report is the majority view that the U.S. economy could sustain increased military expenditures, if such expenditures are necessary, without jeopardizing the health of the economy. In view of the large amount of unsupported generalization on the negative side of this issue this statement comes like a breath of fresh air.

The supplemental views of the Democratic members add little to the Report. The "hard money" policy of 1953 is criticized, a $200 increase in exemptions and drastic reduction of all excises is advocated to stimulate demand, and a stronger plea for action *now* is made by Senator Douglas and Representative Bolling. Additional views of Representative Patman continue his attack on the

Federal Reserve System but nothing new comes out of his further complaint.

The staff of the Committee has appended several useful documents to the Report. These include a "Summary of the Nation's Economic Budget for 'Maximum' Employment and Production," a summary of the recommendations for legislative action contained in the *Report of the President*, a summary of the tax changes and revenue losses required by laws in effect as of October 1953, and a memorandum on the prospects for economic adjustment when defense expenditures level off and the stimulus of the deficit begins to wear off. As an appendix to this memorandum an analysis of the 1949 adjustment is included. It is significant that the staff of the Joint Committee is much more pessimistic than the Council or the Committee.

IV. *Conclusions*

The three documents provided for by the Employment Act of 1946 illustrate the difficulty of achieving the purposes of the Act. To act effectively to stabilize the economy we must either have an accurate diagnosis of the problem, including a forecast of the outlook for a substantial period in advance, or a degree of flexibility in government programs that will permit us to act boldly to offset known variations from the path of stability with confidence that policies can be reversed as required by further intelligence. In both cases it is also necessary to gain agreement as to objectives and the limits of tolerance that will be allowed the economy in the future. In the latter area perhaps the greatest problem is the possibility of conflict between price stabilization and full employment and the always thorny issue of the extent and degree of direct controls which will be tolerated.

In most of the reports and testimony it is agreed that we cannot have much confidence in our ability to forecast the economic future (Martin Gainsbrugh dissenting) in the short run although there is greater agreement that long-range projections of the future potential may be more accurate. Even if our ability to predict the course of events in the short run should increase, the current state of the world leaves so many external forces free to upset any calculations as to discourage reliance upon a policy geared to projections of even so long as a year. This leads to the conclusion that flexibility must be increased if we are to hope to prevent minor as well as major fluctuations in the economy. To achieve this sort of flexibility requires a degree of coordination of all branches of government that has yet to be made effective by those responsible for stabilization policy. The problem within the executive branch alone is so complex as to require a major change to give any hope for the future. One of the real steps forward under the new administration has been the establishment by the Council of a high level Advisory Board on Economic Growth and Stability. This Board is backed up by an Auxiliary Staff Committee made up mainly of senior staff of the departments and agencies represented on the Advisory Board. It is too soon to tell how well the coordinators will function, but the establishment of the Board is a step in the right direction. Even more difficult, however, is the coordination of executive and legislative programs for action as required in a truly flexible policy. Extensive delegation

of authority to the executive would be required in just the areas where Congress is most jealous of its prerogatives. No solution to this problem is offered in the extensive documents reviewed and none has been able to gain much attention elsewhere. It is to be hoped that in the future both the Council and the Joint Committee will give more attention to these questions.

An effective program assumes agreement on objectives. It is of great significance that the broad purposes of the Employment Act have been removed from the area of controversy among the leaders of both major political parties. There remains, however, the question of maintaining high levels of employment at all times without going much farther in the use of direct controls of investment and even consumer demand than is yet contemplated or desired by the majority of the electorate. The danger now is that the limits of tolerance of fluctuations are so small that pressure to intervene will operate to create inflation and/or direct controls without the choice being made on the basis of all the factors at issue. There is a real question whether the use of fiscal and monetary policies can do much to relieve the sort of employment that may arise as the result of shifts in consumer demand, replacement cycles in the housing and durable goods areas, or periodic fluctuations in investment. The spread of such distress can probably be prevented but the issue that concerns the workers affected is the remedy suggested for his particular area. The issues that have arisen in the realm of agricultural policy suggest some of the complications that have yet to be resolved.

The problem of devising and administering a program that is both effective and fully in accord with the traditional American belief in a dynamic free economy and political democracy is still before us. The reports and hearings reviewed offer the hope that agreement has been won on the desirability of using government to do a better job than has been done in the past. They offer little to pave the way for the resolution of the barriers that still stand in the way of final success. Let us hope that in future deliberations more attention will be directed to these issues and that they will be successfully resolved.

SCHUMPETER'S *HISTORY OF ECONOMIC ANALYSIS*[1]

A Review Article

By Jacob Viner*

The appearance of Schumpeter's *History of Economic Analysis* constitutes a major event in the history of the *Dogmengeschichte* of our discipline. It is a book large in its physical proportions; its text proper amounts to some 1180 large and closely printed pages, much of it in small type. It covers its subject matter from Ancient Greece to Keynes. It aims to account for every writer who made a significant contribution to the development of economic theory. Greek, classical Latin, mediaeval Latin, Italian, Spanish, Swedish, and Dutch contributions, as well as, of course, German, French, and English literature, are reported on from their original texts. Most important of all, this is a history of theory written on the grand scale by an economist who was an original, a powerful, and a versatile theorist on his own account. Schumpeter, moreover, was interested, deeply interested, in apparently the entire range of matters intellectual, was learned beyond the normal capacities of economists, could exercise with facility and with power the whole range of skills which the economic theorist employs: static analysis, dynamic analysis, historical analysis, mathematical and statistical analysis, partial- and general-equilibrium analysis, and so forth without visible end. He was able to deal familiarly with all ages and with the materials of a wide range of disciplines: physics, psychology, history, sociology, mathematics, philosophy, jurisprudence, and perhaps still others. This is a work written in the polymath manner by perhaps the last of the great polymaths.

This is no doubt an over-ambitious book, and it would not be difficult to assemble from it evidence to support the charge that there runs through it a vein of pretentiousness and of intellectual arrogance towards the common run of economists. The fact remains, nevertheless, that Schumpeter did possess learning and skills manifestly exceeding in range those displayed by any other economist of his or our time, and that in this book he applied these endowments to the enlightenment of his readers with a brilliance and a virtuosity which excite and dazzle even when they fail wholly to persuade. There is, as we shall see, much in this book which is redundant, irrelevant, cryptic, strongly biased, paradoxical, or otherwise unhelpful or even harmful to understanding. When all this is set aside, there still remains enough to constitute,

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[1] Joseph A. Schumpeter, *History of Economic Analysis,* edited from manuscript by Elizabeth Boody Schumpeter. (New York, Oxford University Press, 1954. Pp. xxv, 1260. $17.50.)

by a wide margin, the most constructive, the most original, the most learned, and the most brilliant contribution to the history of the analytical phases of our discipline which has ever been made.

There is evident only one major limitation to the scope of this history which Schumpeter deliberately adopted. This is a history of "economic analysis," not of economics in general. Social doctrines, practical policies, and the application of economic theory to the solution of practical problems, while repeatedly referred to, are brought into the discussion only to show their relation, or, more often, their lack of relation, to economic analysis.

A history of economic analysis can be written, legitimately, according to any one or any combination of a number of patterns: as a history of concepts and of ideas, the intellectual ingredients of theories; as a history of theories, the constituent elements of systems; as a history of systems; as a history of authors, or of schools or near-schools; as a history of the use of particular tools. Although there is a large measure of validity to his claim that "theorems and not persons are the heroes of [his] story" (p. 384), Schumpeter in fact follows to some extent all of these patterns, and moves from one to another freely as he goes along. There results a considerable amount of overlapping material and of repetition, and a highly complex organization of the book as a whole. For the reader these disadvantages are more than compensated for, however, by the richness of insights and the variety of logical relationships and intellectual filiations which this procedure brings into our range of vision.

Repetition creates opportunity for contradiction and inconsistency, and I have found some, especially with reference to attributions and denials of priorities in discovery. The contradictions, however, are extraordinarily small in total and extraordinarily unimportant, if weighed against the amount of material handled and against the fact that this is a posthumous publication, unfinished, and prepared for publication by his widow, the late Elizabeth Boody Schumpeter, from manuscript which was to some extent still in preliminary and tentative shape at the time of Schumpeter's death.

Schumpeter includes, as "techniques" of economic analysis, economic history, statistics, economic theory, and "economic sociology," the role of economic theory being, apparently, to supply the tools of analysis, and of the other three to provide the content, factual and hypothetical, of the propositions to which the tools can be applied for the purpose of deriving statements of causal relations or interdependencies. He makes adequately clear some of the types of intellectual operations which he regards as outside the field of "economic analysis": mere common-sense or unsophisticated explanations of relations between phenomena (p. 9); nonempirical, "mystical," "metaphysical" propositions (p. 8); "philosophical vision or interpretation of meanings" (p. 422); "factual analysis" and the "immediately practical," presumably when pursued without aid of refined tools (p. 497); "the institutional aspects of economic life" (p. 589); "the attempts of men to apply their reason—and volition—to the task of changing [things]" (pp. 757-58); "the ends themselves, that is to say, the kind of society or culture we want" (p. 1145).

All of these are excluded from the area of study for which he assumes

responsibility not on the ground that they are unworthy of study, but as an arbitrary delimitation of his task: "analytic or scientific . . . remember: we do not attach any complimentary meaning to either of these words . . ." (p. 55); "He who writes a history of, say, agricultural technology does not thereby prove that he thinks it more important than the history of religion" (p. 1140). This does not suffice, however, to conceal from us the fairly obvious fact that for Schumpeter it is analytic achievement which above all else entitles an economist to honor and brings intellectual distinction to economics.

It is not made quite clear to what extent "good" economic analysis is dependent on the realism of its assumptions. "Scientific truth" at times seems to include propositions which are factually untrue. On the other hand, "associationist socialism is unscientific because these plans involve assumptions about human behavior and administrative and technological possibilities that cannot stand scientific analysis for a moment" (p. 454). A close investigation might show that Schumpeter unconsciously was less exacting in his demand for realism for authors to whom he was favorably disposed than for authors who rubbed him the wrong way. When defending resort to or acceptance of unrealistic assumptions he appeals to what he regards as appropriate parallels in other fields, especially physics: "It is as important to realize the inevitable discrepancies between theory and fact that must result from [reasoning from unrealistic assumptions in economics] as it is to realize that they do not constitute a valid objection to the former; it is no valid objection to the law of gravitation that my watch that lies on my table does not move toward the center of the earth, though economists who are not professionally theorists sometimes argue as if it were" (p. 1031). The problems that may arise for economic analysis because the obstacles to the operation of its theoretical "principles" are more omnipresent and in practice less removable than are tables as obstacles to the operation of the law of gravity are not really explored.

It is a major doctrine of Schumpeter that philosophies, political doctrines, value preferences, psychology, and many other matters, have no contribution to make to economic understanding, which is exclusively the product of acquaintance with facts and of "scientific" analysis. "[David Hume's] economics has nothing whatever to do with either his psychology or his philosophy" (p. 447). The universe of economic analysis and the universe of philosophic discourse "are two different worlds that do not touch anywhere and neither of which can tell us anything about the phenomena . . . in the other without reducing its own arguments to futility" (p. 422, with particular reference to Adam Müller). Beliefs, moral principles, sympathies, preferences, may provide the economic theorists with motivation for finding a logical (and presumably also an illogical) basis for a desired conclusion (p. 383). But economic analysis has nothing to contribute to the choice of ends, which is a wholly subjective affair: "We may, indeed, prefer the world of modern dictatorial socialism to the world of Adam Smith, or vice versa, but any such preference comes within the same category of subjective evaluation as does, to plagiarize Sombart, a man's preference for blondes over brunettes" (p. 40).

Economic theory can serve economic policy, but only by pointing out the appropriate means for attainment of given ends:

> To say that pure theory is of no interest for practice is as unreasonable as to say that pure mechanics is of no interest for building the machines we want. The ends themselves, that is to say, the kind of society or culture we want, we must choose ourselves. No science can do more than indicate the means of attaining whatever it is we want (p. 1145).

This picture of economic analysis as a somewhat ethereal intellectual activity, without roots in values, without entanglements with other social disciplines, without any contribution to make to the rational selection of social ends, represents, I suppose, Schumpeter's subjective ideal. In actual life, means and ends are not so sharply distinguishable, and ends are not frozen and impervious to "analysis." Ends can be means to other ends, and what are means from one point of view are ends from another; economic analysis could in particular cases bring this to light, and merely bringing it to light could result in a modification of ends. Systems of ends, moreover, may be—are perhaps certain to be—complex and incompletely harmonious. Economic analysis, by exposing the source and the character of contradictions in systems of ends, can operate, without need for exhortation, to bring about a revision of an established set of ends, for individuals and for societies. Economic analysis can conceivably show that the means requisite for the attainment of certain ends are not available, or are too costly in some sense, and may thus in effect force a revision of ends. There is no method of influencing ends which falls outside the legitimate scope of economic analysis except the employment of the hortatory method, the appeal to the emotions, and the appeal to authority. To deny any influence to economic analysis is to deny any role to reason in the formation by a sensible man of his system of ends. I cannot quite believe that Schumpeter would have rejected these elementary propositions, but he certainly wrote as if he did.

It could well be inferred from what I have said so far about Schumpeter's book that its contents consisted wholly or overwhelmingly of reproduction of and reasoned appraisal of specific analytic performances. Measured in pages, however, I am sure that much less than half of the book fits these specifications. The remainder consists of a very miscellaneous collection of matter, much of it having only the most tenuous or even no visible connection with economic analysis.

In the first place, the book is badly name-ridden. There is a tremendous parading of names associated with meager and casual bibliographical information, names of all kinds of persons, some listed for commendation as economic analysts, others listed for commendation of their work in other phases of economics, or in other fields, others listed for disapproval, or as uninteresting, and others just listed. There is frequent ranking, and awards of grades for merit of one kind or another, and comparisons as to merit of men whose connection with each other is scarcely indicated. The index of names, on a rough count, lists well over a thousand names, and from a sample check I

gather that probably well over a hundred names have not won admission to the index.[2]

In this respect the book follows only too closely the model of Schumpeter's earlier (1924) *Epochen der Dogmen und Methodengeschichte,* which in turn followed too closely the model of Cossa's *Guida allo Studio dell'Economia Politica* in its various editions and translations. An orderly annotated bibliography would have served much better than this clutter of names. It would not be difficult, I think, to enrich the book by adding fifty or so additional names at a prescribed ratio of, say, one new name to ten names dropped. The additions I would propose would be mainly of scholastics, of contemporary commentators on Ricardo, of members of the Trinity College, Dublin, school, and, surprisingly enough given Schumpeter's command and my lack of command of the mathematical literature, of pioneer users of the mathematical, including the graphic, method in their analysis. Much as I would like to, however, I am unable to add to Schumpeter's list the name of a single nonliving author for whom I would claim that as economic analyst he was in or near the first rank.

There is, second, a good deal of general intellectual history, not visibly related to economic analysis and frequently described as having no such relation. There is, third, some economic history, sometimes of supreme quality, but often with no demonstrated relation to economic analysis or its history. There are, fourth, references to or accounts of specifically economic writings, and biographical material concerning their authors, with respect to which there is reported the absence of analytic content, or the absence of meritorious analytic content, or the presence of analytic achievement without description of its nature.

These four categories of material account for the great bulk of the first two hundred pages, for perhaps half of the next three hundred pages, and for a much smaller but still substantial fraction of the remainder of the book. It seems to me a great pity that Schumpeter did not concentrate more on the reporting and reasoned appraisal of important analytical work, which he did so exceedingly well, and did not leave the *Kulturgeschichte* to the encyclopedias and the reporting on the great areas barren of economic analysis to the mythical author of the chapter on snakes in the book on the flora and fauna of Ireland.

On the display of bias in this book I will say little. Schumpeter was not simple-minded nor naive, and I would have to know more about him and to know better than I do the corpus of his other writings to be sure that I had

[2] The major service which this book will perform will be as a book of reference rather than as a book for continuous reading. The index, therefore, is all important. I happen to know that Mrs. Schumpeter, who, before her death, put so much effort, devotion, and skill into the preparation of the manuscript for publication, was at one stage at least acutely dissatisfied with the quality of the index, which had not been prepared by her or under her direction. I have no criticism of the present index except that it is incomplete, both in its subject part and in its names part. In both cases the incompleteness is serious enough to detract significantly from the potential usefulness of a very important book.

correctly identified the patterns it took. His biases could take the form of exaggerated enthusiasm and praise as well as of undue disdain and contempt. He was basically generous, moreover, and there is much evidence of his disciplining himself to give appropriate praise to analytical work which was of a high quality even when executed by men who used it to support conclusions he did not like. The fact remains that in the case of some authors he emphasizes their defects as analysts and admits their merits only grudgingly whereas with others he draws attention only to their strong points and leaves unmentioned or strains himself to find some sort of defense for the weak points in their analysis.

It is when Schumpeter is dealing with authors whose analytical quality he rates highly and whose economic analysis constituted a complex and coordinated system that he rises to his highest level in his book. His reports of these systems are magnificent feats of summarization. In outlining the analytical framework of these systems, moreover, he brings clearly into the light the fullness of their achievement and enables us to read these authors henceforth with deeper understanding and appreciation. It is the substantial portions of the book which he devotes to exposition, appraisal, and praise, of the economic analysis of Cantillon, Quesnay, Marx, Jevons, Menger and Böhm-Bawerk, Cournot, and Walras—and less enthusiastically, Adam Smith, Marshall, and Fisher—which constitute its most valuable contribution. Nowhere else, I think, in the literature of our discipline, can one find, within comparable limitations of space, as brilliant, and as self-effacing, exposition by one economist, himself a master, of the analytical achievements of other economists. Since I have raised the issue of bias, it is incumbent on me to add that there are hints throughout of disagreement with the conclusions even of the economists he praises most highly, that the basis of this disagreement is often some line of analysis more or less special to Schumpeter himself, that his own special doctrine is never obtruded on the reader or even clearly exposed, and that he never makes any claims to priority on his own account or even refers to any of his own original work.

The remainder of this review will consist mostly of objections of one sort or another, minor and major, to specific positions taken by Schumpeter. It will be a mechanical consequence that the amount of space in this review as a whole given to adverse criticism exceeds the amount given to praise. I would ask the reader to bear in mind, however, that my praise is in general terms and my criticisms are mostly of specific points, and that criticism both calls more for support by appeal to argument and detailed evidence than does praise and is more susceptible of such support than is praise.

Schumpeter's display of command of intellectual history is most impressive in its range and in its apparent depth. My major reaction to it is one of humble and respectful admiration. It may none the less be useful to point out a few instances where I am more or less certain that he has gone astray.

In signaling Petty's pioneer work in introducing "figures" into economic analysis, Schumpeter fails to point out that some of these "figures" were the products of a rather undisciplined imagination or of arbitrary manipulations

of data. Partly in consequence of such procedure on the part of Petty, and of other early political arithmeticians, not only was it not true of Political Arithmetic that "nobody attacked" it (p. 211), but it was a frequent subject of satire from the late seventeenth well into the eighteenth century. Among those who made it the butt of their satire were Shaftesbury, Swift, Defoe, Richard Steele, and Mandeville, although it had among its many defenders men who, for our purposes at least, had even greater distinction.

In referring to Tooke and Newmarch's *History of Prices*, excessively factual for the purposes for which it was written, as "*histoire raisonnée*" (p. 690) Schumpeter mistakes the meaning of the term, which was the French equivalent of "conjectural history," or history not factual enough for its purposes.

Schumpeter expresses amusement at the use of the term "experimental" by utilitarians to describe their procedure, and interprets it as an illegitimate attempt at appropriation of a term that, through the successes of physical experimentation, had acquired an eulogistic connotation. Such attempt he says, "runs through the whole history of economics from the seventeenth century" (p. 432; see also pp. 493, 537). "Experimental," however, was commonly used, with no intent to deceive, not only to mean "learning from experiment" but also to mean "learning from experience." This latter is still given as an acceptable meaning by the *Oxford Dictionary*.

Terms like "individualism," "rationalism," "empiricism," "romanticism," the fiat currency of intellectual history, are conceded by Schumpeter not to have stable and uniform meaning, but he nevertheless uses them freely as if they did and without attempt at definition. He states his "strong personal aversion to utilitarianism" (p. 1153). All his references to it, and especially to its Benthamite version, are hostile and abusive. It is associated not only with hedonism, but with a hedonism of "stable and barn" (p. 429). It ruled out, "as contrary to reason, all that really matters to man"; it was "the shallowest of all conceivable philosophies of life" (p. 133). It was "boisterous and vulgar" (p. 66). There is no definition, however, and no argument, and there is, I think, sufficient evidence in this book to show that, surprisingly for him, he had no direct acquaintance with the complex early history of the quite respectable body of doctrine to which, late in its history, was given the name of "utilitarianism."

Schumpeter wrongly identifies Hobbes' "social contract,"—which he explains correctly—with Locke's (p. 119). There is an important difference between them: the monarch is not a party to Hobbes' contract and therefore acquires no obligations to his subjects; the monarch is a party to Locke's contract, and his lawful authority is confined within the limits of the obligations to the citizens which he assumes in entering into that contract.

Schumpeter says of Montesquieu's famous definition of "natural laws" that it is one which "cannot be commended too highly" (p. 232), but quotes only a fragment of it as if it were all of it. High authorities, early and recent, have pointed to Montesquieu's definition as an outstanding example of the survival of confusion between "natural law" as a declaratory statement of observed regularities in the behavior of phenomena and as comprising norma-

tive rules of conduct as revealed by "right reason" or as proclaimed by divinely ordained civil authorities.[3]

There follow comments on specific passages in Schumpeter's book more closely related to economic analysis.

On Plato's treatment of division of labor, Schumpeter comments as follows:

> He elaborates on this eternal commonplace of economics with unusual care. If there is anything interesting in this, it is that he (and following him, Aristotle) puts the emphasis not upon the increase of efficiency that results from division of labor per se but upon the increase of efficiency that results from allowing everyone to specialize in what he is by nature best fitted for; this recognition of innate differences in abilities is worth mentioning because it was so completely lost later on (p. 56).

The importance of innate differences of abilities was one of Schumpeter's strongest convictions. I know of no one of consequence except Adam Smith who failed to point out as one of the services of division of labor that it enabled tasks to be assigned in accordance with aptitudes. (Even Adam Smith's failure was not a complete one.)

There no doubt has been "commonplace" treatment of division of labor in economic writings, but this has by no means been the invariable rule. I know of no study of the history of discussion of the idea, but such a study would reveal that division of labor was at times made the starting point for pioneer exploration of the technological foundations of economic process, of the role of physical capital, especially machinery, in economic progress, and of the relations between occupational and class differentiations of populations.

Schumpeter finds very little economic analysis in the ancient Greeks and Romans. I am not qualified to dispute this judgment, although I think it would be possible to add a little to what he has culled.

On the basis of a passage from his *Ethics*, Schumpeter interprets Aristotle as "groping for some labor-cost theory of price" (pp. 60-61). Commentators on and translators of Aristotle have always had a tendency to find in his texts whatever theory of value was fashionable at the time they were writing. The first attribution to Aristotle of a labor-cost theory of value that I have been able to find was by John Gillies, a classical scholar, in 1797, who in fact charged Adam Smith with plagiarizing Aristotle in this respect.[4] In recent years, when an Austrian-type, or a utility- or demand-type of value theory has been dominant, commentators have found in Aristotle an anticipator of such theory.[5] I have failed myself to acquire any conviction as to what Aris-

[3] Cf. André Lalande, *Vocabulaire technique et critique de la philosophie* (Paris, 1926), I, 435.

[4] John Gillies, *Aristotle's Ethics and Politics* (London, 1797), I, 270-71. Gillies, in addition to the passages on value which are commonly cited today from *Ethics* and from *Politics*, refers to *Metaphysics*, Bk. 1, ch. 9; 1050A-28ff. (Bekker).

[5] See, *e.g.*, O. Kraus, "Die Aristotelische Werttheorie in ihren Beziehungen zu den Lehren der moderner Psychologenschule," *Zeitschr. f. die gesamte Staatswiss.* (1905), LXI (4), 573 ff., and Josef Soudek, "Aristotle's Theory of Exchange," *Proceedings of the American Philosophical Society* (1952), XCVI, 45 ff.

totle was driving at, except that, if modern translations are at all adequate, there is nothing in his texts to justify attributing to him any labor theory of value beyond what is involved in the explicit recognition only of labor as a factor of production.

Schumpeter deals with the economic doctrines of the scholastics throughout in a strongly apologetic way, and as if they still stood in urgent need of defense against the neglect or biased attack which was common generations ago. In the process he praises their value and monetary theorizing not only as basically sound, but as innovating and as superior in many respects to later accepted doctrine. The late schoolmen had all the elements for "a full-fledged theory of demand and supply . . . the technical apparatus of schedules and of marginal concepts that developed during the nineteenth century is really all that had to be added to them" (p. 98). He insists in particular that the subjection of the schoolmen to Church authority did not in any way restrict their resort to scientific analysis of economic phenomena. Only where revelation was involved was Church authority of decisive importance, but "in everything else (and this includes, of course, the whole field of economics) any argument from authority was 'extremely weak' " (pp. 76-77; citing Aquinas).

My direct knowledge of the writings of the schoolmen is fragmentary, but I have read widely the secondary sources, old and recent. On the basis of this reading, my general impression is that Schumpeter is substantially correct in his account of their monetary and value doctrines and that his praise of them, while exaggerated, is largely justified. His selection of particular writers for laudation seems to me rather arbitrary and, despite the profusion of names which he provides, there are some notable omissions.[6]

When it comes, however, to the analytic merits of the scholastic doctrine of usury (interest), it seems to me that Schumpeter carries his apologetics to wholly unreasonable lengths. Here, unlike the question of just price, Church authority, in the form of official interpretations (and translations) of Biblical texts, decisions of Church Councils, Papal Bulls, Church tradition, resolutions of theological faculties, etc., had decisive importance as to what it was permissible not only to practice but to say.

That money capital was sterile—or alternatively that its offspring was illegitimate—was standard doctrine of the Church. All that is of legitimate interest in the present connection is that the prohibition of interest was supported not only on dogmatic grounds but also on economic and utilitarian grounds. In the process of distinguishing between what was licit and what illicit, the doctrine grew progressively in complexity and in subtlety and the

[6] Among the secondary sources not referred to by Schumpeter that, I think, provide ample support for this opinion are: Charles Jourdain, "Mémoire sur les commencements de l'économie politique dans les écoles du Moyen Age," Institut National de France, Académie des Inscriptions et Belles Lettres, *Mémoires* (Paris, 1874), XXVIII, Pt. I; Joseph Höffner, *Wirtschaftsethik und Monopole im fünfzehnten und sechzehnten Jahrhundert* (Jena, 1941); A. Sandoz, "La notion de juste prix," *Rev. Thomiste* (Jan.-Apr. 1939), XLV, 291 ff.; Raymond de Roover, "Monopoly Theory Prior to Adam Smith," *Quart. Jour. Econ.* (Nov. 1951), LXV, 492 ff.

arguments supporting the lawfulness of some kinds of transactions were often marked by analytical insight and development. The fact remains that a large part of the scholastic literature on usury consisted of an attempt to demonstrate that there was a sufficiently sharp *economic* difference between the money-loan, or *mutuum,* where if interest was charged it would be (approximately) pure interest only, on the one hand, and transactions in which the interest element was implicit and tied-up with other elements (business ventures involving some participation by the investor in the risks of loss of the enterprise, purchases of annuities and of perpetual bonds, leases of durable property, and so forth) on the other hand, to make reasonable on ethical and economic grounds, as well as necessary on grounds of religious dogma, the condemnation to eternal damnation of those who practiced the former without repentance and restitution, and the sanction, as altogether legitimate, of the latter. In so far as I understand it, the equivalent with reference to English common law would be to hold that a "loan" at interest was illegal, socially injurious, and scandalous, whereas a transaction approaching it as closely as possible in every respect except that it was given the form of a "bailment" would be completely legal, socially beneficial, and without any odor of scandal. The common argument of apologists, which Schumpeter accepts, that the historical economic circumstances were such that this distinction had economic and welfare merit then which it later lost seems to me unsubstantiated, highly questionable, and without *raison d'être* except its services to apologetics.

Schumpeter's defense seems to be in part motivated by the fact that his own theory of interest has some affinity to that of the scholastics in that, like the latter, it sharply distinguishes between interest on money-loans and direct return to durable physical capital. Schumpeter, apparently, would reject the proposition that even an "idle" cash balance, if held in rational amount in relation to the circumstances of the holder, would be no less productive—of product, or of consumer's utility—than an inventory of materials awaiting processing or of goods awaiting sale, than a second plough held in reserve by a farmer, or than the contents of a housewife's deep freeze, when each of these was of rational dimensions. As far as this book is concerned, however, no light is afforded to the reader as to the analytical grounds for such rejection, and I find it difficult even to conjecture what they are, even with the aid of such acquaintance—far from complete—as I have with Schumpeter's handling elsewhere of the problem of interest.

Schumpeter comes equally vehemently to the defense of the mercantilist doctrines against later criticism—including that of the present writer. His defense consists of an acceptance, as reasonable in the historical circumstances, of the national objectives of the mercantilists, including the indefinite accumulation—apparently at whatever economic cost—of hard money or "treasure" and the pursuit of self-sufficiency with regard to all products except raw materials, and of a justification of the appropriateness (or effectiveness) of the specific means whereby they thought these ends could be promoted. There are no novelties in Schumpeter's treatment of the issue, and there would be

no point in joining debate on it here. I make only one comment. Schumpeter asks whether I would condemn modern arguments and practices of a "mercantilist" character as vigorously as I have criticized those of the past (p. 336). The best answer I can give that would be extremely brief is that the events of recent decades have only strengthened rather than weakened my conviction of the faults, analytical, practical, utilitarian, of the mercantilist approach to international economic problems.

Schumpeter's "Reader's Guide" to Adam Smith's *Wealth of Nations,* although unfinished, is an admirable outline of such theoretical structure or "system" as there is in that book, and would make an extremely useful introduction to any new edition of it. Schumpeter does not like Smith, however, as theorist, as man, or with respect to his social views. The *Wealth of Nations,* although in some unexplained way it was "a great analytic achievement" (p. 38), completely lacks originality. It "does not contain a single *analytic* idea, principle, or method that was entirely new in 1776" (p. 184). Many of his predecessors excelled him as analysts. Verri's concept of economic equilibrium was "as far as this goes, rather above than below A. Smith" (p. 178). It is "not without interest to observe how little, if anything, [Campomanes] stood to learn from the *Wealth of Nations*" (p. 173). Most references to Adam Smith are hostile. He suggests that Smith's criticism of Mandeville's (two-volume!) "pamphlet," *The Fable of the Bees,* may have been due to jealousy of Mandeville as the anticipator of the argument for "Smith's own pure Natural Liberty" (p. 184).[7] "The wooden hands of the Scottish professor" and "the safe side that was so congenial to him" (p. 212), his "feelings of resentful distrust" and his "narrow views" with respect to big business (pp. 150, 545), these are representative of Schumpeter's reaction to Smith. Smith was writing "in bad faith" when he claimed that the mercantilists "confused" wealth with money (p. 361). It is not, I think, necessary to accept Adam Smith as a hero of our profession to conclude that Schumpeter's objectivity was somewhat undermined here by the conflict between Smith's and his own "ideologies."

It is a major element in Schumpeter's almost complete rejection of Ricardo's analysis that Ricardo accepted the demand-and-supply explanation of the determination of market price but rejected it for "natural" or long-run normal (competitive) price. (See pp. 220, 482, 569-70, 604, 611, 684, 921.)

Two comments which Schumpeter makes in connection with other matters have some relevance for this matter also: first, one should distinguish between "the markets of real life" and "markets that are . . . nothing but highly abstract creations of the observer's mind" (p. 1008); second, "with economists' loose ways of expressing themselves, I find it very difficult to arraign individuals whose statements might be amenable to more favorable interpreta-

[7] This conforms with the standard interpretation of Mandeville. It is, nevertheless, about as wrong as it could be, because it overlooks the vital role Mandeville assigns to "the dexterous management of the skillful politician." *Cf.* my introduction to the reprint by the Augustan Reprint Society of Mandeville's *A Letter to Dion* [1732], (Los Angeles, 1953).

tions" (p. 1052). In using demand-and-supply *terminology* for the determination of "market price," that is, actual price, or temporary price, or instantaneous price, but rejecting it in his explanation of "natural price," Ricardo was not innovating. This practice goes back to the seventeenth century at least. It can be justified on the ground that it was semantically unfortunate that it later on became common to use the same term "demand" (and correspondingly for "supply") both for *the* quantity that would *actually* be taken in a given historical market at a given *actual* price in a given *actual* moment of time and for "that highly abstract creation of the observer's mind," the long-run normal demand function.

The only evidence that Schumpeter offers—and I am unable to add to it—that the issue is more than a semantic one, is the statement with a reference to Ricardo's *Principles,* Chapter 30, that "in the Ricardian system prices can fall to cost level directly, that is, in a way other than by increase of output" (p. 684). The only thing in this chapter which can conceivably be interpreted as supporting this is the use by Ricardo, presumably as a limiting case, of an illustration where, in modern terminology, a demand curve of zero elasticity intersects a (constant-cost) supply curve of infinite elasticity.

In his *Notes on Malthus,* Ricardo refers to a page of Malthus' *Principles* in which the following propositions are laid down: (1) that an alteration in cost without alteration in output would not result in an alteration of price; (2) that "the relation of the supply to the demand . . . is the dominant principle in the determination of prices whether market or natural, and that the cost of production can do nothing but in subordination to it, that is, merely as this cost affects . . . the relation which the supply bears to the demand." Ricardo comments: "These positions those which have preceded them and those which follow are not that I know of disputed by any body." A few lines earlier, Ricardo had said that in a case where hats are produced at constant cost, "their market price will depend on supply and demand—the supply will be finally determined by the natural price—that is to say by the cost of production."[8] Terminology aside, there did not exist that dual line of price analysis, Ricardian and Malthusian, which Schumpeter insists upon. If there was any significant difference between the two, it was that Ricardo's concentration on constant-cost cases kept him inadvertently from working out an adequate apparatus for explaining the determination of long-run price where both quantity demanded and quantity offered were variables dependent on price. It does not follow, in the absence of supporting evidence, that if such a case were presented to Ricardo, or to any one of his followers, he would have handled it any differently than would Malthus.

Many of Schumpeter's other critical comments on Ricardo's analysis lose their point if Ricardo's major concern in his value theorizing was not the explanation of how a given structure of prices had come to be what it was but the explanation of (a) the effect on a given structure of prices of divergent changes in the amounts of the respective factors, and (b) the effect on the

[8] David Ricardo, *Notes on Malthus' Principles of Political Economy,* in *The Works and Correspondence of David Ricardo,* Piero Sraffa, ed. (Cambridge, 1951), II, 44-47.

relative amounts of the factors of changes in the structure of prices. This interpretation of Ricardo involves the question of the role of the supply functions of the factors in "Ricardian" as contrasted with "Austrian" theory, to be commented on later. It makes possible, I think, a better explanation of the ability of the Ricardian theory of rent to survive than that offered by Schumpeter (p. 934). It makes Ricardo's rent theory perform a function in his system more fundamental than that of an ingenious device by which Ricardo could offset his inability to handle simultaneous equations by arbitrarily reducing the number of variables in his model (see p. 569).

Schumpeter does not make clear which of four (or more?) possible explanations of Ricardo's stress on the role of labor costs in the determination of relative prices he accepts: as a device to simplify analysis and with no further intended implications; as providing for most (or for some) purposes an adequate approximation to the truth because of the predominance in fact of labor costs in total costs; as having, per unit of cost, more value-determining significance than other costs; as having, per unit of cost, more welfare or ethical significance than other kinds of costs. (See especially pp. 594-96.)

On the strength of a statement by Ricardo in a letter (to McCulloch, June 13, 1820) that "the great questions of Rent, Wages and Profits . . . are not essentially connected with the doctrine of value," Schumpeter agrees "that there is some truth in Professor Knight's indictment that [in Ricardo's *Principles*] the problem of distribution . . . was not approached as a problem of valuation at all." Schumpeter concedes that there is material in Ricardo which refutes it (he could have found some in the very letter in question) but concludes that "it does show that the full implications of the fact that capitalist distribution is a value phenomenon were not clearly seen even by Ricardo" (p. 543; *cf.* p. 568). It all depends on what Ricardo meant by "the doctrine of value." It seems clear to me from the context that what Ricardo here meant by these words was not the explanation of the determination of relative prices but the problem of finding a "measure of value" through time which itself had stable value.

I question whether it is true that Ricardo held "that 'real values' of commodities are 'regulated' by the 'real difficulties' encountered by the least-favored firm" (p. 1032). To confirm this it would be necessary to establish that for Ricardo the intensive margin played no or little part and the producers who were on the extensive margin were always or generally the least efficient and lowest-income farmers.

The repeated association by Schumpeter of the Ricardian theory of rent with a "monopoly theory of rent" puts undue weight on what for the most part represents only a change in usage of the word "monopoly" by economists (pp. 264, 592, 672, 934). In Ricardo's time the term was widely used to cover: (1) ownership of a scarce commodity by a single holder; (2) ownership by a few; and (3) scarcity of a commodity which, because of zero elasticity of supply, a rise in price would not ameliorate. Land was believed to belong to this third class. I think it more correct to say that Ricardo had an inadequate theory for the determination of price in any of these three classes than

to say that he had one theory, and that a definable one, for all three classes. The common element for Ricardo with respect to the determination of prices of all three classes was that demand would determine price in these cases irrespective of costs. We would not today call this a "monopoly theory of value."

Schumpeter maintains that the Malthusian population theory dealt with a fictitious problem and dealt with it in a trivial manner (pp. 578 ff.; see also p. 446). Botero's "path-breaking performance" of 1589 was "the only performance in the whole history of the theory of population to deserve any credit at all" (p. 255). From the seventeenth to the first decades of the nineteenth century, "with unimportant exceptions," it was manifestly correct that "under prevailing conditions, increase in heads would increase real income per head" (pp. 251-52).

A look at eighteenth-century England serves, I think, to bring things into truer proportions. English society was then organized so as to check growth of population by "artificial" means. Compulsory poor relief on a parochial basis and financed by local real property taxes together with the settlement laws gave a powerful incentive to the ruling classes to discourage local growth of population. There were in effect deliberate deterrents to marriage of various kinds. There was organized public custody of foundlings and of children of persons on poor relief, and it was common knowledge that this operated so as to ensure that most of them would not survive long. There was nevertheless rapid growth of population and deep and pervasive poverty. If one were to accept Schumpeter's argument, the trouble must have been that there was not enough population.

I am not sure that I grasp Schumpeter's point when he argues that it is wrong to criticize the classical theory of the international mechanism "on the ground that it put an altogether unjustifiable burden upon the price mechanism" since "price variations of the kind the 'classic' theory visualizes imply shifts of demand curves which in turn imply variations in income" (p. 733). A few pages earlier, he had rightly stressed the importance of the distinction between what may be implied in an author's statement and what the author understood by it. Moreover, changes in prices, even when they do imply variations in income, do not account for the nonprice effects of variations in income. Reference to price changes is even more obviously inadequate for the analysis of cases where variations in income are unassociated with any changes in prices, or, as Schumpeter himself puts it, "in patterns in which prices are rigid."

On the question of the validity of the substitution by Jevons, Menger, Böhm-Bawerk, and others of a demand or utility explanation of the determination of price for the Ricardian explanation, Schumpeter, like almost all modern theorists, lines up firmly on the "Austrian" side; the Austrian theory in effect added to the English classical theory what needed to be added and rejected what called for rejection, or, less clearly, what could be rejected without serious loss. Let me distinguish two propositions: first, the need for the introduction into value theory of something like the marginal utility analysis

to constitute *a* fundamental or "ultimate" regulator of value; second, the need, or the permissibility, of rejecting costs in the sense either of disutilities or negative utilities, or of the surrender of leisure, of immediate for future consumption, or of more attractive for less attractive employment, as a second fundamental or "ultimate" regulator or determinant of value. After Jevons, etc., had written, scarcely an economist raised any question about proposition one above. It is only on the second proposition that controversy has not altogether expired, and it is only this second proposition which I question.

Marshall, while adopting, and incorporating into his system, marginal utility analysis, rejected proposition two, as did Edgeworth, Taussig, and others, and as do I. It seems to me impossible logically to accept proposition two and at the same time to grant that the quantities of some or all of the factors of production are not given, but are functions of their rates of remuneration. It also seems to me that this difference in the treatment of the amounts of the factors is the only important difference between the Marshallian and the "Austrian" systems, but it is an important difference.

I present some of Schumpeter's comments on Marshall's system which are relevant to this issue:

> Marshall's theoretical structure, . . . is fundamentally the same as that of Jevons, Menger, and especially Walras, but . . . the rooms in this new house are unnecessarily cluttered up with Ricardian heirlooms, which receive emphasis quite out of proportion to their operational importance (p. 837).
>
> Thus, we return from this excursion with the same result that we always get when inquiring into the nature and importance of Marshall's deviations, in what purport to be fundamentals, from the Jevons-Menger-Walras analysis: they are negligible (p. 924).
>
> . . . note XXI in the Appendix to Marshall's *Principles* is conclusive proof of the fundamental sameness of his and Walras' models (p. 952).

It is important here to make another distinction: between questions of formal validity and questions of "emphasis," or of practical significance. I confine myself to the former. Marshall's "note XXI" to which Schumpeter refers includes, as one of a list of assumptions: "(iii) *m* supply equations, each of which connects the price of a factor with its amount."[9] In a corresponding Jevonian, or Austrian, or Walrasian listing of assumptions, the amounts of the factors would be listed as constants. In formal analysis, there is surely nothing more "fundamental" than whether a specific quantity whose importance is not questioned is a constant or a variable. When the quantities of the factors are treated as variables, as functions of their prices, a wide area of analytical development is opened up for and demands exploration. This area Ricardo and Marshall did explore and the "Austrians" did not, except as a side issue, under pressure of criticism, belatedly, and, I believe, incorrectly.

Schumpeter adduces what he calls "the Principle of the Negligibility of Indirect Effects" in support of Marshall's treatment of consumer's surplus

[9] Alfred Marshall, *Principles of Economics*, 8th ed. (London, 1920), "Mathematical Appendix," p. 855.

(pp. 990 ff.). It seems to me that for some at least of Marshall's analysis it is necessary, for the correctness of his findings, not only that particular indirect effects of the change in a particular price shall be negligible, or of a lower order of size than the (total) direct effect, but that the *sum* of all the indirect effects shall be of a lower order of size, and that Marshall fails to give any reason why this should necessarily or ordinarily be the case.

I can see why, for what I understand to be Schumpeter's own version of static equilibrium under perfect competition, there needs to be atomistic as well as over-all perfect equilibrium and every entrepreneur needs to be a zero-profit entrepreneur. But I cannot see why he thinks this is a necessary condition also for a Marshallian or a Walrasian static equilibrium (pp. 674, 893, 1011). For their systems, I would think, all that is requisite is over-all equilibrium of the balanced aquarium type, in which firms (fish) and factors (plants) come into being, grow and die, and only aggregates remain the same. In such an equilibrium there could be risks for the individual firm. Such a model would be more realistic, and for some purposes at least more useful, than one in which equilibrium is required to be present not only over all but for each unit.

In a Walrasian system, constant coefficients of production need not involve "that there is, for each product, only one technologically possible way of producing it" (p. 1011; *cf.* p. 1027). All that the Walrasian system requires in this connection is that there always shall be available one way of producing each product such that some of its technical coefficients are smaller and none is greater than for any other technologically possible way of producing it.

Pointing out that first-order homogeneity of the production function means that there are constant returns to scale, Schumpeter comments: "In itself this implies nothing, of course, about what happens when only one of the 'factors' is increased, the others remaining constant, i.e., about the shape of each 'factor's' marginal productivity curve" (p. 1034). I would see nothing to question in this if all that was intended was to deny that first-order homogeneity of the production function either sufficed to prescribe the shape of any particular marginal production curve, or was inconsistent with almost any conceivable shape for any one (not too important) marginal productivity curve. It does seem to me, however, that acceptance of first-order homogeneity of the production function imposes important restrictions on the general pattern of marginal productivity functions and that these are such as to support *a priori* belief in the predominantly decreasing-productivity shape of the marginal productivity curves. I say this after giving due consideration to Schumpeter's warning that there are logical pitfalls in deciding what properties of production functions are "obvious" or "evident" (p. 1037), but quite probably without giving adequate weight to unperceived mathematical pitfalls.

As I see it, there cannot be both first-order homogeneity of the production function and, for each or most of the factors, constant marginal productivity, *i.e.*, independence of the marginal productivity of the factor from the quantity of that factor, unless there is also, for each or most of these factors, in-

dependence of the marginal productivity of the factor from the quantities of the other factors with which it is associated. Similarly, as I see it, there cannot be both first-order homogeneity of the production function and increasing productivities for each or most of the factors unless there is also over-all net rivalry, instead of complementarity, in production between the factors.

As I find it difficult to believe either that the particular marginal productivities of the factors are ever independent of the quantities of the other factors associated with them, or that there ever is or can be net over-all rivalry in production between the factors, acceptance of the first-order homogeneity hypothesis does carry for me a strong implication of diminishing marginal productivity of the particular factors.

Schumpeter says that "if there were any sense in speaking of a national production function at all, first-order homogeneity of this function would supply a very simple explanation of a remarkable fact, namely, the relative constancy of the main relative shares of 'factors,' in the national dividend" (p. 1040). But first-order homogeneity presumably is a property attributable only to *static* production functions. There is moreover a big step, analytical and presumably also factual, from the properties of the production function to the characteristics of the distribution pattern. If unmanipulated historical data do in fact show anything like a close approximation to constancy through historical time of the relative shares of factors in the national dividend, the existence of first-order homogeneity in the production function would not suffice to remove the mystery for me, even if the data were indisputably accurate and comprehensive. I am not certain whether Schumpeter relies wholly, or largely, for the validity of the "fact" of constancy of relative shares on the Cobb-Douglas statistical findings. If he does, then there becomes pertinent the additional difficulty that these findings were based, unavoidably, on historical data of incomplete coverage and highly doubtful accuracy, and therefore should not be regarded as providing strong confirmation of any valid static hypothesis.

It does not seem to me that most exponents of what they regarded as a quantity theory of the value of money would have accepted as a necessary condition for the validity of their theory "that velocity of circulation is an institutional datum that varies slowly or not at all, but in any case is independent of prices and volume of transactions" (p. 703). Most of them, I think, would not find variability of velocity disturbing for their theory, provided the variations in velocity were not inverse to those in quantity—or, perhaps, even if they were, provided the amplitude of variation of velocity was less than that of quantity.

I am not convinced that Schumpeter says anything (pp. 1095-1110) which bears strongly against the validity of the quantity theory of money if the latter is understood as holding only: (1) that an authority powerful enough to make the quantity of money what it pleases can so regulate that quantity as to make the price level approximate to what it pleases, and (2) that the possibility of existence of such power is not inconceivable *a priori.*

COMMUNICATIONS

The Status of Guaranteed Wages and Employment in Collective Bargaining[1]

The concepts of guaranteed wages and employment have recently begun to occupy an important position in industrial relations. The importance stems not from any large-scale adoption of these measures in current trade agreements, but rather from the persistent demands of several large union organizations that the labor factor be treated as a fixed rather than a variable cost of output in future contracts.

A relatively recent collective bargaining development, guarantees were not a significant union demand until the war years 1943-45 when some large national unions of the Congress of Industrial Organizations made guarantee proposals to the National War Labor Board.[2] The contrast, however, between the guarantee demands made in the war years and those currently being readied for negotiations is marked. The proposals of a decade ago were unrealistic suggestions that workers be guaranteed an annual wage of 52 weeks of 40 or more hours. They would have provided few if any limitations upon coverage, duration or company liability. Recent union statements, on the other hand, seem to recognize that before business firms are likely to grant guarantees on a significant scale certain limitations will have to be written into contracts to provide some degree of protection to the firm.

The present inquiry is concerned with specific proposals recently advanced by the three largest national unions in the United States. These labor organization were not selected for analysis because they are the largest, but because they seem to be among the most active in (1) actually establishing guarantees, or (2) demanding significant guarantee provisions.

I. *The United Steelworkers of America*

The Steelworkers probably deserve special mention as initiators of union demands for guaranteed wages and employment because they, more than any other union, have popularized the concept. Although other unions had negotiated occasional guarantee agreements before the second world war, the Steelworkers' appeal to the War Labor Board in 1943 and subsequent years

[1] This article is based upon part of a doctoral dissertation written at the University of Oregon in 1954, *Guaranteed Wages and Employment and Their Role in Collective Bargaining*. The author is indebted to Paul Kleinsorge, Robert Campbell, and H. T. Koplin for advice and for criticism of the dissertation.

[2] Prior to the war, union interest in guarantees was sporadic. Most of the guarantees which had been established were the work of a few business managers who established them in a limited setting. See U.S. Bur. Labor Statistics Bull., *Guaranteed Wage Plans in the United States: A Report on the Extent and Nature of Guarantee Plans and the Experience of Selected Companies* (Washington, 1948).

introduced guarantees to a national audience for the first time. Despite efforts at and beyond the bargaining table, however, the USW has achieved little success in actually accomplishing this form of security arrangement.

When the 1952 contract negotiations began in the steel industry, the Steelworkers again were ready with a brief, prepared by Murray W. Latimer, supporting their demands for an insured income.[3] It was proposed that guarantee coverage be granted to employees with three years of employment experience with a particular firm. The union statement stressed the necessity for integrating the guarantee payments of private companies with the unemployment compensation payments of the states. The methods of coordination would vary from state to state because of the divergence of state laws and interpretations. In some cases, perhaps, no supplementation would be possible inasmuch as company payments would disqualify the worker from receiving state unemployment benefits, and in these cases the firms would be responsible for the entire amount guaranteed. The Steelworkers obviously could foresee that the result of this disparity between state laws would be employer pressure on state legislatures to change the statutes to allow supplementation of private with public payments.

The USW proposal was for 52 weeks of guaranteed income a year. After drawing unemployment benefits for as long as 52 weeks, a worker would need 8 weeks of re-employment to become eligible for another 26 weeks of coverage, and 16 weeks of re-employment to acquire coverage for another 52 weeks. Only a fraction of the standard 40 weekly hours, however, would be guaranteed. Cost estimates were formulated for durations of 28, 30 and 32 hours, which would constitute 70, 75, or 80 per cent of a full year's pay. The necessity of paying employed workers more than idle workers would be the final determinant of the weekly guarantees, according to the union brief.

The cost estimates were predicated upon the belief that no serious unemployment would occur in the steel industry in the near future because of the large defense needs and sizeable civilian demand for steel products. Thus it was believed possible to accumulate a large reserve fund through company contributions during the period of steel industry prosperity. The volume of payments into the trust fund would be determined by the anticipated cost of the plans and would probably amount to 5 or 10 cents an hour per employee during the first few years. The payments would vary in size according to the experience of the guarantee operation and presumably would stop temporarily

[3] Murray W. Latimer, *A Guaranteed Wage Plan for the Workers in the Steel Industry,* Union Exhibit No. 11, United States of America Wage Stabilization Board, Washington, D.C., Case No. D-18-C, in the Matter of United Steelworkers of America and Various Steel and Iron Ore Companies, 1952. These 1952 demands were repeated, again without significant results, in the aluminum negotiations of 1953 and the steel negotiations of 1954. The 1953 and 1954 proposals were substantially the same as the 1952 suggestions, although some details were changed.

Latimer was also chairman of the research staff of the Office of War Mobilization and Reconversion study, which appeared in 1947 and constitutes the most comprehensive institutional and theoretical survey yet available on guarantees. Murray W. Latimer, *Guaranteed Wages,* A Report to the President by the Advisory Board, Office of War Mobilization and Reconversion, Office of Temporary Controls (Washington, 1947).

if the fund approached a "safe" upper level of accumulation. No specific figures were mentioned as to what this safe upper level might be, but it was suggested that an opening contribution of 7 cents an hour per employee would be sufficient to initiate the fund.[4] From the point of view of the steel companies, the reserve fund method of finance as proposed by the USW contained the desirable feature that company liability would be limited to the extent of the reserve fund.

Three limitations to guarantee liability of business firms which were not sanctioned by the 1952 statement related to: (1) the sacrifice of overtime premiums in exchange for the guarantee as provided by section 7(b) (2) of the Fair Labor Standards Act,[5] (2) government support for guarantee companies other than through unemployment compensation coordination, and (3) sacrifices in the standard rates of pay in order to accommodate the guarantee. The Steelworkers are by no means unusual in their insistence upon maintenance of the regular rates of pay under a guarantee contract. The isolated cases in which unions have sacrificed a part of the standard rate in exchange for income security of this nature were the outcome of special circumstances and are not particularly useful as a basis for analyzing and predicting the behavior of other union groups.

II. *The International Brotherhood of Teamsters*

Turning from the second largest CIO national union to the largest American Federation of Labor international affiliate, the International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers of America, an entirely different pattern of guarantee development is encountered. The Teamster international has never agitated for guarantees on a national scale; it has never sought to bring the issue into national prominence through public debate and propaganda or in the pages of the *International Teamster*, the union's monthly newspaper. Thus the Teamsters are not usually associated with the promotion of guarantees or the type of bargaining they suggest. In the case of certain local Teamster unions, however, an interest in guarantees seems to be emerging.

While some past interest by local Teamster groups is reflected in the files of the Department of Labor pursuant to the overtime exemption afforded guarantee companies,[6] of more current interest is the behavior of Local Union 688 of St. Louis, Missouri. Having voiced an interest in acquiring guaranteed annual wages in 300 St. Louis firms employing 7,000 of the union's 10,000

[4] This figure was raised to 10 cents per hour in the aluminum negotiations of 1953.

[5] Section 7(b)(2) of the Fair Labor Standards Act of 1938 as modified by the 1949 amendments provides an exemption to the time-and-a-half requirements for hours in excess of 40 for workers covered by a bona fide wage or employment guarantee. Such workers may work up to 56 hours a week for straight-time payments. Total annual hours, however, may not exceed 2240 if the exemption is to remain valid, and hours in excess of 2080 must be compensated for at a premium rate.

[6] Wage and Hour and Public Contracts Division, U.S. Department of Labor, *Summary Statement on Collective Bargaining Agreements Under Section 7(b)(2) from the Effective Date of the Fair Labor Standards Act to January 1, 1947*, unpublished report (no date).

members, Local 688's method of obtaining the agreements has differed substantially from the techniques of the large CIO unions.[7] The Teamster group has simply applied economic pressure to the small firms with whom it bargains and has not found it necessary to conduct an orientation effort for the workers or the public. The first bargaining success occurred in January 1953, when the local signed an agreement with the Brown Shoe Company of St. Louis guaranteeing an annual wage to the 425 employees with the highest seniority, 90 per cent of Brown's 475 warehouse and distribution employees.

Under the terms of the compact, the covered workers are guaranteed 2,000 hours of employment each year for the duration of the five-year contract, or the equivalent income in lieu of employment. In no case can a covered worker be idle for more than two weeks without pay, a degree of income security greater than the Steelworkers have considered it prudent to propose. Instead of exchanging a portion of the standard rate for the guarantee provision, a five-year system of pay increases totaling 45 cents an hour was included in the agreement. There was no provision in the contract for a reserve fund accumulation. The absence of such a fund, combined with the absence of any explicit limitation on the total amount of company liability, apparently means that the company is liable to the limit of its resources for carrying out the provisions of the contract. All strikes are not barred by the agreement, since the Teamsters may choose between arbitration and strike action in dispute cases arising over issues other than wages. If a strike is called, the guarantee does not apply to the period of the strike. Finally, whereas the USW had proposed a detailed system of coordination between state unemployment compensation payments and private company unemployment disbursements, the Teamster contract made no mention of such supplementation measures.

Following its initial success in the Brown Company negotiations, Local 688 succeeded in obtaining similar contracts with other St. Louis firms. Twenty guarantee agreements had been negotiated by August 1953 and others were being proposed.[8] The contrast between the Teamster accomplishments and the relatively mild Steelworker proposals probably results from the differences in the market structures and the character of the industries with which the two unions bargain; the differences seem to favor the Teamsters in the acquisition of guarantee contracts, particularly in view of their local as opposed to Steelworker national bargaining patterns.

III. *The United Auto Workers*

When Walter Reuther addressed the opening session of the 1953 UAW-CIO convention, his remarks were directed primarily toward the next stated goal of the UAW in collective bargaining—guaranteed annual wages. Auto Worker agitation for guarantees began, as in the case of the Steelworkers, during the second world war. In response to what was feared might be a postwar depression, the UAW, among other unions, envisioned a system of guarantees as a method of cushioning its members against the shock of such an even-

[7] "Anti-Recession Contract," *Bus. Week,* Jan. 31, 1953, p. 130.

[8] *Bus. Week,* Aug. 15, 1953, p. 145.

tuality. In a 1944 article,[9] Reuther made clear the nature of the system he promoted, and when he was chosen UAW president in 1946, guaranteed wages and employment were placed on the list of UAW collective bargaining demands.[10] The issue warranted somewhat passive Auto Worker support until 1952 when a revived guarantee movement in the UAW reflected the increasing national attention being accorded the matter.

Reuther likened the union proposal to its earlier drive for pensions:

> We said in 1949 it was time to end the double economic and moral standards in labor-management relations. Corporation executives got $25,000 a year, some of them $75,000 a year pensions, and yet they denied pensions to the workers.
> Here again on the guaranteed annual wage we find the double standard. Half a dozen General Motors executives get from three to four, even $500,000 a year. They live by the year, they get paid by the year.
> But the workers live by the year and get paid by the hour. That is where the problem arises.[11]

The Auto Worker president indicated that the UAW would push for guarantees with the same vigor employed in acquiring pensions and that the ultimate economic weapon might be used if necessary to achieve the goal. Pursuant to Reuther's opening address and the work of the research staff preceding that speech, resolution number 24, entitled "Guaranteed Annual Wages," was passed by the convention. The first principle of the resolution was: "The primary goal of a guaranteed annual wage should be to stimulate management to provide steady, full-time employment, week by week, the year around."[12]

The second principle stated that the amount of wages guaranteed should insure the worker the same standard of living he would enjoy with a full year's income. It is doubtful, however, that the Auto Worker representatives will insist upon a guarantee of 52 weeks of 40 hours. A guarantee of 52 weeks of 30 or 32 hours would probably satisfy this area of UAW demands. One determinant of the UAW position on this matter will probably relate to what other unions are able to achieve in regard to duration of guarantees.

The third principle of the resolution reads:

> All workers should be guaranteed employment or guarantee payments from the time they acquire seniority. The guarantee should assure protection against a full year of layoff for all eligible workers and for shorter periods on a graduated basis for those who have not worked the minimum qualifying period.[13]

Since two years constitutes the seniority requirement in many UAW con-

[9] Walter Reuther, "Why an Annual Wage," *Ammunition* (Educational and Research Dept., UAW-CIO), June 1944, pp. 5-7.

[10] Resolution no. 26 of the 1946 convention gave official UAW endorsement to the demand for guaranteed annual wages.

[11] *Proceedings Fourteenth Convention 1953 of the International Union United Automobile, Aircraft and Agricultural Implement Workers of America (UAW-CIO),* Mar. 22-27, 1953, Atlantic City, N.J., p. 10.

[12] *Ibid.*, p. 21, of the third day's morning session.

[13] *Loc. cit.*

tracts, two-year employees would be eligible for 52 weeks of guaranteed employment or wages under these terms. Workers with less than two years' service but more than a year's company duty would be entitled to 26 weeks of guarantee payments, while persons with less than a year's seniority would not be covered by this part of the agreement.

In an effort to make the plan more attractive to management, the UAW convention's fourth principle related to the desirability of coordinating state unemployment compensation payments with company disbursements. It was resolved:

> That we direct management's attention to the possibilities of substantially reducing its guaranteed wage liabilities by working to bring about needed amendments to State Unemployment Compensation legislation which would increase benefits, extend duration, eliminate unjust disqualification provisions and remove such obstacles as may exist to the integration of unemployment compensation with guaranteed annual wage plans.[14]

The fifth principle pertained to the establishment of a joint board for adminstering the plan; and the final principle related to the financial arrangements, the salient feature of which would be a reserve fund accumulation of company payments:

> Financing should combine pay-as-you-go, to provide employers with incentive to stabilize employment, with a reserve trust fund to meet abnormal costs. Provisions should be made for reinsurance to reduce the size of the required reserves and to spread the risk of abnormal unemployment over the widest possible area of the economy.[15]

The magnitude of company payments into the trust fund would be computed as a percentage of payroll, probably up to 10 per cent.[16] Consistent with both the Steelworker requests and the Teamster agreements, the UAW proposals provide for no concessions in the standard rates of pay or in overtime premiums. The similarities between the Auto Worker and Steelworker proposals are apparent in the seniority provisions on coverage, the limitations on total annual income guaranteed, the attempt to coordinate state unemployment compensation payments with company plans, and the partial system of reserve fund finance. As yet the Auto Workers have not made clear whether company liability would be limited to the reserve fund.

It is, of course, impossible to determine with finality the seriousness with which UAW guarantee proposals are being made. The analogy to pensions, if real, seems to indicate that some determination accompanies the requests for security. This attitude seems to be reflected in the following remarks made by Nathan Weinberg, UAW research director, in an address to the American Management Association:

> The workers of America want a guaranteed wage and they are going to get it. They will get it just as surely as they got pensions.

[14] *Loc. cit.*

[15] *Loc. cit.*

[16] *Bus. Week*, Feb. 21, 1953, p. 177.

> If you make it necessary, they may acquire a lot of picketline seniority before they win wage guarantees; but in the end, you will come to the bargaining table, pen in hand, to sign guaranteed wage contracts.[17]

At the 1953 convention of the CIO, the federation itself sought to strengthen the position of its two largest members by going on record in favor of guaranteed annual wages and employment as the next major bargaining goal of CIO labor unions.

Conclusion

The pertinence of current guaranteed wage and employment discussions is related to the announcements of some major labor organizations that these will become the next major aims of collective bargaining. Other union demands—escalator contracts, pensions, vacations—have been attained in many cases. For economic reasons, some unions contend, wage earners must have, and are determined to acquire, wage and employment guarantees. For political reasons, it may be that union officials require another significant bargaining device. Some of the important leaders seem to have decided upon guarantees as the most useful bargaining issue.

However, union attempts to establish an economy-wide system of secured wages and employment are likely to find a management community which is largely hostile to treating labor as a fixed cost of output. Although a small group of entrepreneurs has been willing to experiment with wage and employment guarantees, it is unlikely that any large number of employers will follow suit except under pressure and after some industrial strife.

Don A. Seastone*

[17] *Ammunition*, Feb. 1953, p. 3.

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Technological Change and Aggregate Demand

A widely accepted opinion among contemporary economists is that rapid technological change stimulates aggregate demand. Accordingly, many have looked upon the recent (apparent) acceleration in the rate of technological change as a harbinger of stable full employment, or at least as an important bulwark against future depression. Presumably this opinion rests on either or both of two assumptions: (1) that technological change increases the demand for capital, or (2) that it raises the consumption function.

That rapid technological change is a favorable factor in the economic outlook is a recurrent theme in the *Economic Report of the President* for 1954. This report states, for example (p. 61): "Research and development activities of industry, nonprofit institutions and Government are steadily enlarging the opportunities for new investment." This argument is buttressed by a special appendix presenting estimates of expenditures for research and development in recent years. A vigorous statement of the same idea is found in an address by Sumner H. Slichter: "The principal reason why it is impossible for me to be anything but optimistic about the intermediate business outlook is the extraordinarily rapid growth of technological research. . . . Research increases

the demand for goods as well as the capacity for industry to make goods. It increases the demand for goods partly by raising investment opportunities and partly by increasing the variety of goods offered to consumers, thus raising the proportion of personal incomes spent for consumption."[1] An advertisement of General Electric suggests that the idea has gained popular approval: "Anyone who spreads fears that we may be facing another major depression ignores completely how much America has changed since the 1930's. Industrial research and development have broadened the base of our entire economy and, even more important, have laid the groundwork for a steadily increasing expansion in the years to come."[2]

The purpose of this note is to examine the relation between technological change and aggregate demand. My conclusion is that, while technological change probably does tend to raise the demand for capital and the propensity to consume, there are important offsetting factors the principal one being the tendency of technological change to increase risk.[3]

The view that technological change tends to increase the demand for capital rests upon two arguments: (1) that the adoption of innovations usually requires an increasing ratio of capital to other factors, and (2) that technological change renders existing capital goods obsolete.

First, does technological change require a higher ratio of capital to other factors and so increase the demand for capital? This is the question of whether innovations are, on balance, capital-requiring or capital-saving. This question has been so thoroughly considered in the debate on the stagnation hypothesis[4] that further discussion here would be fruitless. I shall merely point out that not all innovations are capital-requiring, some—perhaps many—are capital-saving. In considering the net impact of innovation on the demand for capital, the effect of capital-saving innovations must be deducted from the effect of capital-requiring ones.[5]

[1] *Commercial and Financial Chronicle,* May 27, 1954, p. 2350.

[2] *Saturday Review of Literature,* June 12, 1954, p. ii.

[3] I shall define *technological change* as variations in methods of production, or in products, arising from applications of new knowledge. Technological change is a peculiarly obscure concept because it is difficult to distinguish, either practically or conceptually, those changes in methods and products which are attributable to new knowledge and those which derive from changes in consumer tastes or in supply of factors. It is also difficult to measure the rate of technological change and so to give meaningful content to the prevalent idea that this rate is increasing.

[4] See especially, A. H. Hansen, *Full Recovery or Stagnation* (New York, 1938); A. H. Hansen, *Business Cycles and National Income* (New York, 1951), pp. 478-82; and George Terborgh, *The Bogey of Economic Maturity* (Chicago, 1945). See also the bibliography in *Readings in Business Cycle Theory* (Philadelphia, 1944), pp. 477-78 and 484-85.

[5] Additional but inconclusive evidence on this point is found in the studies of Simon Kuznets and Raymond Goldsmith on long-term trends in the ratio of reproducible tangible wealth to net national product. This ratio has remained in recent years substantially below the level maintained prior to 1930. Simon Kuznets and Raymond Goldsmith, *Income and Wealth of the United States: Trends and Structure,* International Association for Research in Income and Wealth: Income and Wealth Series II (Cambridge, England, 1952), pp. 296-300.

Second, does technologically induced obsolescence tend to increase the demand for capital? Perhaps so. The discovery of new products and new methods reduces or destroys the value of existing capital goods and creates a demand for new capital goods to replace the outmoded old ones. But the conclusion that this increases the demand for capital must be provisional because obsolescence also exerts a deterrent effect upon investment.

The effect of technological change as a stimulant to the demand for capital is likely to be offset, at least in part, by the fact that it hastens the *expected* rate of obsolescence. As technological change continuously presents new methods and new products, and thereby outmodes existing capital goods, businessmen inevitably become aware of its pervasive effect on the probable life of existing assets. Any actual or anticipated speeding-up of technological change is likely to increase the expected rate of obsolescence and businessmen will then be inclined to require still higher prospective rates of gross return to justify any given investments.[6] Only to the extent that the rate of innovation exceeds the expected rate will there be no corresponding restraint upon investment plans. And even then, as such unexpected technological change materializes, it will likely be subjectively incorporated into the weighted average rate of (expected) innovation and may deter subsequent investment plans. Thus, while technological change tends to raise the demand for capital by creating new profitable investment opportunities, it also tends to lower the demand for capital by hastening the (expected) rate of obsolescence. True, any one innovation may open up new profitable uses for capital, but it does not necessarily follow that speeding up the rate of technological change for the economy as a whole will raise the demand for capital.

A numerical illustration may suggest the possibilities. Suppose, at experienced rates of obsolescence, the average expected life of all capital assets is (on the average) 20 years.[7] Then, assume that the rate of technological change increases so that the average expected life falls to 15 years. This would increase expected capital consumption charges by about 33 per cent. Assuming that capital consumption constitutes about 10 per cent of all costs of production, this would mean an increase of 3 per cent in prospective total costs. This cost increase (like an equivalent rise in the interest rate) would reduce the demand for capital, offsetting at least partly the increase in demand generated by the technological change.[8]

Technological change (and related obsolescence) may also tend to lower the demand for capital by influencing the *form* of investment. For example, as businessmen expect more rapid obsolescence they may buy capital assets

[6] *Cf.*, Emery Troxel, "Economic Influences of Obsolescence," *Am. Econ. Rev.* (June, 1936), XXVI, 280-90.

[7] For an interesting and useful schedule of depreciation rates for various types of assets, see Raymond Goldsmith, "A Perpetual Inventory of National Wealth," in *Studies in Income and Wealth*, Vol. 14, National Bureau of Economic Research (New York, 1951), pp. 22-23.

[8] This cost-increasing effect of innovation may, of course, be offset partly or wholly by the cost-decreasing effect of some innovations.

that are less durable and they may maintain their capital assets less carefully. Or they may buy capital goods that are less specialized and that can be converted to new uses—even though they may be less efficient in any particular use. Moreover, rapid technological change may introduce financial problems in that lenders will be unwilling to grant long maturities or low interest rates on loans secured by capital assets subject to rapid obsolescence.

Of course, this entire discussion rests on the assumption that variations in the rate of technological change will be reflected in businessmen's expectations regarding obsolescence. This seems a reasonable assumption (though of course particular innovations may not be foreseen). Businessmen, at this stage in the industrial revolution, have already had ample experience with technological change, and it is probable that amortization rates are already determined primarily by expected rates of obsolescence rather than by physical life—the latter determining only the lower limit of amortization rates.[9] There is already a growing practice of setting standards for investment decisions in terms of short payoff periods, and great interest in accelerated depreciation and other devices directed toward rapid recovery of capital. Indeed, businessmen can scarcely avoid considering future technological possibilities in their investment planning in an age that is dominated by an almost morbid interest in technology. Moreover, businessmen themselves are operating scientific laboratories, and are in a strategic position to form realistic expectations about probable future rates of obsolescence. Perhaps the ultimate outcome will be the one-year payoff period, *i.e.*, the expensing of capital outlays.

Schumpeter's paradox of "creative destruction" is relevant not only to competitive relationships but also to capital investment. What technology gives in investment opportunities it may also take away in increased risk.

The proposition that technological change is favorable to high employment, though usually supported on the ground that it raises the demand for capital, is also defended on the ground that it increases the propensity to consume. This result is said to be achieved because technological innovation (1) enlarges the range of products available to consumers, and (2) hastens the obsolescence of existing consumer goods. Each of these arguments is plausible and doubtless partially valid. However, each can be accepted only with substantial qualifications.

It is of course true that technological change widens the range of products available to consumers, and it is plausible that the availability of new products tempts people to increase their consumer spending. Yet there are grounds for questioning this conclusion. Surely, the introduction of a new product, television for example, does not increase aggregate consumer spending by an amount *equal* to expenditures on television, as seems sometimes to be implied. Before television was ever thought of, most individuals were confronted with a myriad of consumption opportunities beyond their means. They were confronted with the possibility of buying not only additional units of goods

[9] *Cf.*, Joel Dean, *Managerial Economics* (New York, 1951), p. 149. For an excellent discussion of the economic significance of obsolescence, see: Simon Kuznets, "Comment," in *Studies in Income and Wealth*, Vol. 14, *op. cit.*, pp. 62-68.

already being consumed (*e.g.*, food, clothing, housing space, etc.) but also thousands of additional goods which they could not afford at all (*e.g.*, trips, sailboats, photographic apparatus, summer camps for children, etc.) The difficulty of saving the marginal dollar was about as great before the debut of television as after. For most people, spending has seldom been limited by lack of objects to buy or by lack of desire. It is not evident that the addition of new objects changes appreciably the pressure to spend relative to the desire to save. More likely, the purchase of new goods is largely at the expense of other goods that would have been purchased at the same level of income—though it must be conceded that dramatic innovations like the automobile or television may have tapped funds that would otherwise be saved.

It is true that technological change renders consumer goods obsolete; but one must proceed with caution in concluding from this that technological change increases the propensity to consume. The effect of obsolescence on consumers may be somewhat similar to its effect on businessmen. If technological change increases the demand for consumer goods by outmoding existing goods, it may also increase the expected rate of obsolescence and thus tend to reduce demand. Moreover, in meeting the problem of obsolescence, consumers like businessmen may try to avoid some of the costs of obsolescence by demanding cheaper and less durable goods instead of dearer and more durable goods. But conceding that technological change may increase the demand for automobiles or appliances, or other consumer durables, it does not follow that this will change the aggregate propensity to consume. It may merely redirect demand from industries in which technological change is slow to those where it is rapid. It is not self-evident that one's desire to have a late model car and one's willingness to scrap cars before their physical usefulness has ended lead to a higher propensity to consume. They may merely alter the structure of demand.

In view of these considerations, the proposition that technological change increases the propensity to consume must be accepted with important reservations. One's intuitive judgment is that technological change does tend to raise the propensity to consume, yet there are enough offsetting factors to suggest that the effect is not large.

This paper is a mild protest against what I consider to be the excessive claims of those who assert that rapid technological change will protect us against future unemployment. In writing a paper of this sort, one is tempted to overstate his case. To clear the record, I shall try to summarize my conclusions accurately: (1) technological change probably does tend to raise the demand for capital but this effect may be offset wholly or in part by the increased (expected) rate of obsolescence resulting from innovation, and (2) technological change probably does tend to raise the propensity to consume but the effects are not likely to be substantial. Technological change may not prove to be the bulwark of future high-level stability that current literature frequently suggests.

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What Every Economist Should Know about Health and Medicine: Comment

In the March 1954 issue of the *American Economic Review,* Professor Eli Ginzberg, in a review article entitled "What Every Economist Should Know about Health and Medicine," assesses the Magnuson Report (*Building America's Health,* A Report to the President by the President's Commission on the Health Needs of the Nation, Washington, 1953). Since the Magnuson volumes are undoubtedly the most important study of the financing and organization of medicine since the famous reports of the Committee on the Costs of Medical Care more than twenty years ago, it might be well to present to economists another version of "What Every Economist Should Know about Medicine."

Let me say at the outset that Ginzberg makes many wise and penetrating remarks about the economics of medicine and about the Report under discussion. As Ginzberg contends, there is little use of pumping more money into medicine unless an attack on shortages of personnel, equipment, and facilities is also made. Otherwise the effect is likely to be inflation rather than improvement of service. But this is a principle well known in Washington. Even in the presentation of its program of National Health Insurance (NHI) the Truman administration time and again stressed the need of limiting additional demands on services to those markets where they were equal to the strain. No one conversant with recent British experience could be blind to the danger of a hasty expansion of services offered not offset by an adequate provision of future supplies. Nor was the Commission blind to this consideration.

Ginzberg raises questions concerning the shortage of personnel, an issue on which the Commission is eloquent. The application of doctor-population ratios in rich states to the nation necessarily reveals a shortage of physicians. This approach, credited to the Commission, is faulty, as Ginzberg contends. (Though this is not the only approach used—see Vol. I, p. 13.) Ginzberg really seems to believe that there is no shortage of physicians. He should compare each of the following variables for 1900 and 1950: the supply of doctors, the number of annual medical graduates, per capita national income, population, the demands put upon the medical profession by increasing births and the proportion of the aged in the population, the additional needs related to improved financing and organization, the requirements (present and prospective) set by the cold war, the scarcities of psychiatrists and the increased need for them, the increased complexities of medicine, the maldistribution of personnel both geographically and occupationally (inclusive of an excessive number of specialists relative to practitioners). Against these factors all pointing to additional needs (often unmet because of financial obstacles to seeking medical care), we can only weigh the improved quality of the doctor, the greater ease of getting around, and, as the American Medical Association so frequently points out, improved teamwork. (Nurses complain bitterly, however, of the unwillingness of physicians to allow them to assume responsibilities of which they are capable.) On the issue of teamwork, it might be said

that organized medicine objects to the one kind of teamwork that really results in doctors caring for more patients than formerly—*i.e.*, the teamwork of group practice. My criticism of the Commission would be not that they exaggerate the shortage but that they underestimate it. It is of some relevance that there were substantially fewer physicians in relation to population in 1950 than in 1900 or 1850 and a smaller number (absolute) graduating from *all* medical schools in 1950 than in 1905. Surely the large rise of physicians' incomes also points to shortages of personnel.[1]

On the issue of subsidies to medical education as a means of increasing the supply of physicians, Ginzberg is critical of the Commission for not dealing with the financial problems of the Institutions of Higher Learning (IHL). But as one who served on the financial panel of the Commission and also summarized for the Commission the discussion of what I thought was an excellent two-day seminar by leading experts on financial problems, I am sure that the Commission was aware of the problems of the IHL. Thus, Dr. Ward Darley, dean of the medical school and vice-president of the University of Colorado, pointed out to the Commission orally and in writing that transfers to medical schools from university funds had risen from 7 to 34 per cent of medical school income over a period of eight years. "This is creating serious financial problems for many universities" (Vol. IV, p. 94). Ginzberg also contends that there are inadequate applicants for medical schools, in part because the peak of veterans' enrollment has been reached. But he surely must be aware that in 1954 we reach the minimum of numbers in the college-age group and by 1960 there will be 20 per cent additional population of college age, and by 1970 about 70 per cent additional. Responsible estimates put IHL enrollment at 3 to 4 million by 1970 as against 2 million currently.[2]

Ginzberg also writes: "Nor did the Commission sense that an increasing number of deans of medical schools would be claiming in 1953 that they were facing a shortage of promising applicants" (p. 109). Aside from the relevance of the fact that increasing college enrollments are to be anticipated, I refer again to a statement by Darley: "Most medical educators believe that if sufficient funds for all medical schools could be made available, continuing increases in their enrollments, consistent with high quality education will rapidly catch up with the need. . . ." (Vol. III, p. 98).

Perhaps, as Ginzberg contends, a $100 million subsidy will not solve the problem of the medical schools. But as long as it costs $3,000 per year to educate a medical student who pays about $500, the medical schools are going to find expansion most difficult. A subsidy of $1,000 per new (additional) student and $500 for existing enrollment, which was provided in a Congressional bill that came close to passage, would help greatly. Medical deans sup-

[1] From 1937-39 to 1951, the average net income of physicians rose from $4,363 to $12,518, or by 189 per cent. This might be compared with the much less favorable rise of other professions and especially teaching. See especially *Surv. Curr. Bus.*, July 1952, and *Magnuson*, Vol. 4, p. 251.

[2] *College Age Population Trends: A Source of the Committee on Special Projects, for the American Association of Collegiate Registrars and Admissions Officers*, Columbus, Ohio, 1953; also see *New York Times*, June 6, 1954.

ported this bill in evidence before a Congressional Committee. (That the member of the Magnuson Commission who was a medical school dean was opposed to federal subsidies does not, as might be assumed from Ginzberg's remark, reflects the views of medical school deans generally. *Cf.* Vol. III, p. 98.)

On the need of new hospital beds, Ginzberg also disagrees with the Commission. He is critical of the Commission for accepting the Hill-Burton formula (the basis of the Federal Hospital Construction Act which provides federal subsidies) for determining need of new hospital beds; and he also is alarmed by the costs involved in meeting the estimated deficiency of beds. On the first point, note the Administration in 1953, after a careful survey of estimates of needs of hospital beds, supported the Hill-Burton formula.[3] In fact, hospital building under the Hill-Burton Act over several years has not reduced the deficiency. The original deficiency under the Hill-Burton formula was 800,000 beds with existing capacity at 1 million: the President's undocumented estimate in 1954 was 600,000; the actual provision over several years of building under the Hill-Burton formula has been about 100,000 with closing of federal hospitals, obsolescence and growth of population more than offsetting this gain of 100,000. In fact, total beds were down from 1,739,000 in 1945 to 1,530,000 in 1951, with the decline of government beds exceeding the total decline.[4] Deficiencies are especially serious for mental and chronic illnesses. In the case of the latter, for example, the deficincy at the end of the war was almost 3 times the current capacity; but in June 1952 the deficiency was 6 times current capacity. Chronic beds accounted for more than 30 per cent of the total deficiency and yet accounted for but 4 per cent of the projects (dollar value) under the Hill-Burton Act until June 1952.

Ginzberg's estimates of costs of construction of hospitals seem very high. He estimates the cost of the Commission program for construction of general hospitals at $4.5 billion, and of mental hospitals at $5 billion. But on the basis of the costs of construction under the Hill-Burton program (this program financed construction beginning in 1948), I obtain the following (Vol. IV, p. 279):

	Average Cost per Bed	*Deficiency of Beds*	*Total Cost* (millions)
General	$17,000	226,000*	$3,842
Mental Beds	$7,300	330,000*	$2,409

* These figures are identical with those used by Ginzberg.

Wrongly, Ginzberg seems to impute to the Commission a program for covering the deficiency of 800,000 beds. I see no evidence for this position in

[3] L. S. Reed and H. Hollingsworth, *How Many General Hospital Beds Are Needed?* (U.S. Dept. of Health, Education, and Welfare, Washington, 1953), p. 66.

[4] It should be noted that government beds were excessive and private beds inadequate. The introduction of comprehensive insurance on a wide basis might cut the demand for hospital beds though it is not at all clear that the net effects would be reduced needs. For statistical material in this paragraph, see L. S. Reed and H. Hollingsworth, *op. cit.*, p. 22; and especially "America's Health Status, Needs and Resources," a statistical appendix in *Building America's Health*, Vol. III, especially pp. 229-52.

the Report (Vol. I, pp. 25-28). Indeed, the Commission wishes to improve on the Hill-Burton Act. But performance under this act depends upon appropriations; and the present administration appropriated $50 million for 1954-55. The Commission itself would add but $77 million per year to the construction program as of 1952 (Vol. I, p. 79). I can only conclude that Ginzberg's figures are highly inflated—even if, despite a stabilization of prices since March 1951, we allow for an inflation of construction costs of 5 to 10 per cent since 1949-50. (Actually construction costs were stabilized in 1951 and 1952 and hospital construction costs in 1951 were 7 per cent in excess of those for 1948-50.)[5]

I cannot leave this discussion of hospitals without commenting on another of Ginzberg's statements. Again, I do not find support for this generalization: "Further, since the recent advances in medicine have given most persons a good chance of staying out of hospitals from the time they are born until they begin to undergo the decrepitude which accompanies senescence—with the possible exception of a day or two for a tonsillectomy or a week or so for an appendectomy—the exclusion of patients with long-term illness from a plan for financing health involves a major restriction. Every general hospital in the country is aware of the fact that it is being transformed from an institution concerned with the treatment of acute conditions to one primarily concerned with caring for the multiple complaints of the aged" (p. 117). In this connection, note the following:

1. From 1935 to 1952, there was "a decrease in the length of patient stay by 32 per cent in non-federal hospitals."[6] Is this consistent with the increased and almost exclusive use of hospitals for chronic illness?

2. In 1951, 89 per cent of total beds were in short-term hospitals and 11 per cent in long-term hospitals, with average length of stay being 8.3 and 114 days, respectively.[7]

3. "On the basis of diagnosis, chronic diseases account for probably 25 to 50 per cent of the days of hospitalization of all general hospitals, *i.e.*, exclusive of mental and tuberculosis hospitals."[8]

4. How much care for chronic long-term patients is provided by short-term general hospitals is difficult to say. Under the Blue Cross Plan in 1948, 2.8 per cent of the cases paid for had a stay of 30 days or longer; these cases entailed 16.4 per cent of the total days of care paid for by the plan.[9] Other studies of Blue Cross suggest that chronic diseases were responsible for 28 to 34 per cent of all hospital days.[10]

Perhaps my main differences with Ginzberg revolve around the problems of

[5] *Survey of Current Business* and *Magnuson Report*, Vol. IV, p. 274.

[6] *Financing Hospital Care in the United States: Recommendations of the Commission on Financing of Hospital Care* (Chicago, Ill., 1954), p. 37. *Cf.*, also, *Magnuson Report*, Vol. III, p. 278.

[7] U. S. Department of Health, Education, and Welfare, *How Many General Hospital Beds are Needed?* (Washington, D.C., 1953), p. 32.

[8] *Ibid.*, p. 33.

[9] *Ibid.*, p. 34.

[10] *Ibid.*, p. 33.

organization and finance. Despite the phenomenal rise of Blue Cross and Blue Shield, prepayment health insurance is still a relatively small factor in American medicine: all prepayment plans provide but $1.5 billion of the more than $10 billion of private costs of medicine. Group practice is still in a primitive state. The crucial issue is, why is this so?

The reviewer of the Magnuson report contended that group medicine has made so little progress primarily not because of the opposition of medical societies and lack of finance but because American physicians are individualists and do not like group practice. I am unable to accept this interpretation. The medical societies ruthlessly fight prepayment programs, in part because they believe that the net effect is likely to be reduced revenues for the profession. Indeed, they support Blue Cross, in part because the net effect is to channel more money into medicine; but Blue Shield insurance is restricted to low or moderate income groups. In other words, the doctors are given the freedom to charge what the traffic will bear in the case of patients with incomes above, say, $5,000, and are given additional protection in the case of patients with lower incomes through insurance and a spreading practice of inflating charges when the insurance agency pays the bill or a major part of it.[11] Indeed Ginzberg is right when he says that doctors want independence. But every producer wants freedom from control by the consumer. Medicine is surely a unique market in that the consumer is denied any control over the service and price, and doctors are allowed to organize in professional societies which, to some extent, determine pricing and service practices. Group medicine is in part an attempt to protect the consumer against one-sided control of the market. The spectacle of a New York physician, head of a unit of the Health Insurance Plan of New York, being persecuted by the New York Medical Society for advertising for new members to join this plan, is distressing.

It is a striking fact that comprehensive prepayment insurance covers but 3 per cent of the population; and there are few of these plans that allow free entry. Why have they not made more progress? Ginzberg does not believe that opposition of medical societies is a decisive factor. Yet the *New York Times* and *Herald Tribune* each year publish vigorous attacks by the societies on the famous Health Insurance Plan of New York, a comprehensive plan with 400,000 members.[12] This plan has survived so far in part because of the help

[11] See, for example, various statements before the Wolverton Committee, *Congressional Record*, App., Jan. 20, 1954, pp. A368, 371. For example, in Michigan one group that raised its fees in order to get full coverage for surgical expenses found that one result was an average charge by the surgeon of $20 more per identical service rendered than for members of another group that did not raise its fees. The surgeon seemed to increase his charge merely because the insured was more nearly covered.

[12] See editorials in the *New York Herald Tribune*, January 16, 1954 and May 16, 1954, and *New York Times*, May 15, 1954 in reply to attacks made by medical societies. "County medical societies ought not to have the power to prevent a legitimate health insurance plan from telling its story through advertisements, or from carrying on any ethical activities" (*Herald Tribune*, January 16, 1954). After defending fee-splitting, the New York State Medical Society voted against the practice of paying salaries to doctors "and voted changes in the code of medical ethics aimed directly at the destruction of a vast number of voluntary prepayment medical care plans" (*ibid.*, May 16, 1954).

given by the City of New York. The opposition of medical societies, such as the New York State Medical Society, expressed both in state legislation, which frequently makes the formation of such plans impossible, and in persecution of physician-members is in no small part the explanation of the snail's pace at which comprehensive prepayment plans have advanced.

Short of the solution of compulsory national health insurance (NHI), the acceptable way out is prepayment comprehensive health insurance. This is the crucial conclusion of the Magnuson Committee. (The Ives-Flanders Bill in the Senate, which the sponsors recently withdrew under pressure from the administration, embodied provisions similar to those recommended by the Magnuson Committee.) But financial subsidies are needed: especially for initial organizing expenses, construction of health centers, and direct subsidies to various comprehensive plans approved by the states, in order to make possible rates low enough for most people to join, or else subsidies to individuals with low incomes which would make possible their participation. This is the approach of the Commission.

Comprehensive plans seem to the writer a healthy compromise between NHI, so effectively disposed of by the AMA for the time being, and *laissez-faire* in medicine. Ginzberg is critical of the Commission for suggesting an outlay of $750 million by the federal government (and a similar one for state governments) to expedite a comprehensive insurance program. In fact, throughout his review Ginzberg seems greatly concerned over the financial costs to government of all facets of medical costs. Yet may not one contend that a $367 billion economy that can reduce taxes by 10 to 13 billion dollars can also afford an ultimate increase of $1 billion for medicine and education?

Indeed an outlay of $1.5 billion (one-half to be paid by federal government) to stimulate the growth of comprehensive insurance may not solve all the problems, as Ginzberg contends—and there is need for allowing time for facilities to grow. Perhaps the Commission merits criticism for urging too rapid a development of comprehensive insurance. In an independent estimate which I presented to the Senate Labor Committee on April 22, 1954 in its hearings on the Eisenhower Health Program, I proposed a governmental outlay of $2,150 million (shared by federal, state, and local governments), this figure to be reached only after ten years. Part of the costs of comprehensive insurance would be met by employers and employees through social security contributions, with government subsidies of $100 for incomes below $1,000 and declining to $20 for incomes above $4,000. This would start us well on our way towards an adequate program. This would not wholly solve the problems of chronic illness, though the suggested added grants by the federal government would help greatly. Time is essential to incubate comprehensive programs, for the effects of the present program would be merely to subsidize the present inadequate health insurance programs, and thus freeze an unhealthy situation.

Differences between the Commission and Ginzberg stem largely from philosophical and ideological considerations. In general, Ginzberg is wary of government spending, of government influence upon the spending pattern, or of public interference with the distribution of medical resources. When there is

little disposition to intervene in the financing and organization of medicine, then there is a disposition to minimize the potential contributions of improved organization and financing.

Those who stress the importance of improving organization and financing are not necessarily blind to the relevance of other considerations. But because all slums cannot be cleared out at once or because the problems of the aged and of those with subnormal incomes cannot be solved at once, it does not follow that a frontal attack should not be made on the financing and organization of medicine. I make this point because the AMA has so often contended that the road to improved health lies in better housing, higher incomes, better nutrition, etc.; in their view, improvements in these directions are needed, not reforms in the methods of organizing and financing of medicine. I am afraid that Ginzberg's presentation implies an agreement with the AMA position.

What is wrong with medicine is inadequacy of resources; their maldistribution; the inadequate mechanisms for pooling resources on an insurance principle; the excessive weight given to payment on the fees principle, with unfortunate delays in seeking help; the shortages of important personnel and facilities. It is possible to channel more resources into medicine and achieve a better distribution, and probably with a resultant rise of income several times the additional costs. It is no more anti-free enterprise to use the taxing power to cut down the consumption of tobacco and alcohol in order to increase the consumption of medicine (as the British have done) than it is anti-free enterprise to use the general property tax to finance the major part of a $7 billion educational bill. How much would we be spending on elementary and high school education today if the same organized pressures had prevailed a century ago in education as now prevail in medicine to keep down expenditures both public and private?

What every economist should know about medicine is that at our standard of living we ought to spend more money on medicine and ought to obtain an improved distribution. But without government guidance and limited financial help, the required improvement in organization will not be forthcoming.

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Reply

In returning to the issues that I raised in my original article, "What Every Economist Should Know About Health and Medicine," and which Professor Harris dealt with in his extended comments, I am breaking a rule of twenty years not to engage in public rejoinders. Every man should have his say; and there is little gain from repetition. However, my original presentation and Harris' reply deal with very complex issues with which most economists are not very familiar. It may be helpful, therefore, to spend a little more time evaluating the principal issues. In my opinion, most of the differences between Harris and myself with regard to policy grow out of our differences in reading the evidence.

1. Is there a shortage of physicians? Harris is sure that there is, and offers as evidence many changes including increases in population and wealth. He lays major stress, however, on the ratio of physicians to population in 1850 and in 1900, compared to 1950. Harris must have overlooked the fact that in the earlier periods a man could acquire a medical degree by paying his fees through correspondence; and that it was customary for the young man to proceed directly from high school to medical school. There is no more logic to comparing the physician of 1850 with the physician of 1950 than there is to comparing alchemists and chemists. My own studied conclusion to the problem of whether a shortage exists follows:

> A judgment about the level of medical care is not the same as a judgment about the number of doctors, for the number of physicians is only one factor determining the level of medical care. New patterns of medical practice that will result in the improved utilization of the available supply of physicians provide a major opportunity for raising the level of medical care. Nevertheless, although the number of doctors being trained is already increasing slowly, the evidence points to the desirability of a greater rate of increase. Great care must be taken, however, to maintain and even further improve the quality of medical training. Moreover, no foreseeable increase in the number of graduates is likely by itself to solve some of the most serious types of shortages such as currently exist in rural areas and in many state hospitals. The successful solution of these problems requires the combined efforts of the nation, the affected communities, and the medical profession.
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> (*A Policy for Scientific and Professional Manpower,* National Manpower Council, Columbia University Press, 1953, pp. 240-41.)

2. Harris believes that without federal subsidies to medical education, the expansion of medical schools will prove difficult. There is no clear and obvious need for rapid expansion. The Commission on the Financing of Higher Education recently concluded, after an exhaustive study of the problem, against such a subsidy. The crux of the financial problem of medical education appears to be related primarily to the untoward effects of the medical school's drain upon the general university budget, rather than an insufficiency of funds to expand the number of doctors in training.

3. As to the state of our hospital facilities, Harris argues that despite the construction of recent years, we still have a national deficit of 800,000 beds against a base of 1 million beds in active use. He fails to mention that the rate of occupancy in general hospitals is in the low 70's, against an optimum of 85 per cent. No sensible person can deny that many hospitals are obsolescent and should be scrapped and replaced by modern structures when the opportunity arises, as in the event of a depression. Overcrowding in mental hospitals is notorious, and there are serious deficiencies in facilities to care for the chronically ill. But to calculate a total bed shortage of more than 550,000 and then to support the Commission on the Health Needs of the Nation's recommendation for an increased federal expenditure of $77 million per year is, if not incomprehensible, at least confusing. Harris believes that I overestimated hospital construction costs, although I checked my estimates

with a major hospital planning agency. But even his revised estimate shows a national requirement of $6 billion!

4. Harris is amazed by my prognosis that general hospitals, because of the very advances of medicine, will increasingly be concerned with caring for the complaints of the aged. He, himself, quotes sources which point to the fact that currently up to one-half of all days of care in general hospitals can be accounted for by chronic illness. My statement was based not on conditions today but on my estimate of conditions a decade and a generation hence. A study of a controlled population, such as that of the Army, is highly suggestive of what has been occurring during the past decade. At the outbreak of the second world war Army hospitalization, exclusive of facilities required for the care of battle casualities, was planned on a ratio of more than 4 per cent of troop strength. Current occupancy is below 2 per cent. If Harris would talk with the admitting physician of any teaching hospital, he would find further substantiation for my generalization. Almost every teaching hospital has a serious problem of finding a sufficient number of active ward cases.

5. Harris believes that I failed to appreciate the reasons why group practice is in such a primitive state. It is clear to him that the opposition of medical societies is determining. There can be no question about the opposition of organized medicine to certain types of groups, especially those in receipt of public subsidy. This opposition may be against the public interest. I am by no means sure that in every instance this is so. But it is important to note that among the Board of Trustees of the American Medical Association are physicians who head very large group-practice units and who are strong advocates of their extension. Aside from the justified or mistaken opposition of organized medicine, the reasons for the slow growth of groups must be sought in the following: They have been unable to provide comprehensive services of good quality at a sufficiently low cost to be attractive to many; many consumers are willing to pay more for their medical services for the privilege of choosing their own physicians; although comprehensive care is the exception, medical practice today is group practice in the sense that no competent doctor practices alone.

6. According to Harris, comprehensive plans seem to be a healthy compromise between national health insurance and *laissez faire* in medicine. Harris says that a $367 billion economy which is currently reducing taxes by $10 to $13 billion can also afford an "ultimate" increase of $1 billion for medicine and education. The Commission recommended a program of $1 billion of additional federal expenditures immediately, that would involve the states in a corresponding increase of $750 million immediately. And, as Harris recognizes, such expenditures would not solve the problems of financing medical education, cover the costs of hospital construction, lead to a substantial improvement in the level of care in mental hospitals, provide adequate services for the chronically ill—to list only these omissions. No one will argue against the desirability of increasing reliance on the insurance principle for the payment of medical care. Growth over the past years has been phenomenal, and every sign points to continued growth. The comprehensive health insurance program that the Commission advocated and Harris supports will

fall far short, as we have seen, of being comprehensive. Both the Commission and Harris have stipulated but not proved the need for comprehensive programs. We need better insurance programs and these are on the way.

Harris concludes that the basic differences between the Commission and myself stem largely from philosophical and ideological considerations. He says that in general I am wary of government spending, of government influence upon the spending pattern, or of public interference with the distribution of medical resources. Harris has interpreted my position correctly. It may be helpful if I briefly indicate why I hold such cautionary attitudes about the ability of government and the public purse to solve the crucial problems of medical care.

I have not been heartened by the job that the federal government has done in providing medical care for our veterans; even less by the record of the state governments in caring for the mentally ill; and the picture is not improved when one reviews the operations of municipal hospitals.

I have seen the number of physicians increase by tens of thousands without providing adequate coverage for certain rural areas. The number of psychiatrists has doubled and doubled again, but state mental hospitals remain badly understaffed. Increases in the general supply contribute very little to the solution of specific shortages.

Harris concludes by raising the question how much we would be spending on elementary and high school education today if the same organized pressures had prevailed a century ago in education as now prevail in medicine to keep down expenditures both public and private. Two points are worth noting. Despite pressures to restrict the level of *federal* expenditures for medicine, *total* expenditures exceed the amounts devoted to public education. Secondly, the quality of medical services available to the average citizen resulting from untidy and, in many instances, unsatisfactory financial patterns may be no worse, and in fact considerably better, than the quality of education available to his children, neatly financed out of the public purse. The nub of my difference with the Commission and with Harris lies not in my unwillingness to see more money spent for medical care, even more federal monies, but my conviction that there is no need to design grandiose plans and there is every reason to seek economical solutions for the specific problems that face us.

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Some Questions about Growth Economics: Comment

These remarks respond to "Some Questions about Growth Economics" which L. B. Yeager critically addressed in this *Review* (March 1954) to the Harrod-Domar-Hicks analysis of stable growth. His questions are essentially two: (1) Are not the methods of theorizing used in this analysis so "unscientific" as to invalidate the conclusions of the analysis? (2) Is it not true that "no trouble from supposed discrepancies between various growth rates would occur under stable money conditions"?

Yeager answers each question affirmatively, thereby creating the impression

that the Harrod-Domar-Hicks analysis is superficial and misleading for policy matters, and that emphasis on monetary factors would provide a better explanation of cyclical and growth phenomena. If these conclusions were to be accepted, many economists might believe that much recent progress in economic analysis had been illusory. For the growth models have been instrumental in showing that full employment and a steady rate of growth depend on the fulfillment of fairly rigorous conditions, and that, while monetary elements are important in explaining particular aspects of specific cycles, the basic systematic character of the business cycle is better interpreted in nonmonetary terms. It is the contention of the present comment that Yeager's criticisms are not sufficiently convincing to warrant abandonment of these growth models as significant points of departure for further research into the issues raised by the growth theorists.[1]

I. *Methodological Issues*

Yeager levies two methodological criticisms: (1) that theorizing of the Harrod-Domar-Hicks type "commits the error of 'conceptual realism,' "[2] and (2) the parameters of the relationships used in the theory are not stable.[3]

As to the first alleged error, it is submitted that the propensity to consume and the capital-output ratio are empirical concepts. To recognize that these concepts have operational meaning, one need only offer in evidence the many studies which attempt to measure the consumption function and capital-output ratios. The concepts of a "natural rate of growth" (the notion of a ceiling on full capacity output) and a "warranted rate of growth" (the notion of a moving equilibrium output) are admittedly of a different character. They are logical concepts. This, however, does not make their use illegitimate.

To believe that all the concepts of science have their counterparts in "actual entities in the real world" is to misunderstand the methods of modern science. Such a view confuses the question of the acceptability of theories and the question of the reality of theoretical entities, and confuses experience and the logical methods by which we think about experience. The essence of any theory which purports to explain some set of phenomena is the introduction of fresh conceptions. We want to be able to look at the old phenomena in a new way, and so need to be given new questions to ask about them and new techniques with which to draw inferences about them. A fundamental merit

[1] As the many reviews of R. F. Harrod's and J. R. Hicks' books indicate, there are other relevant questions that can be put to growth economics. The present discussion, however, is confined to Yeager's questions.

[2] "The growth theorists apparently sometimes forget that concepts such as the propensity to consume, the capital-output ratio, the ideal rate of growth, and the natural rate of growth are not actual entities in the real world but rather just freely chosen constructs of their own mind." Yeager, *op. cit.*, p. 62.

[3] "To be specific, the propensity to save and the marginal capital-output ratio . . . are not constants. . . . while experiment justifies natural scientists in relying on the stability of their parameters, some economists simply postulate the existence of parameters despite lack of evidence and, indeed, despite ample reason for doubting that stable numerical relationships hold true in human affairs." *Ibid.*, pp. 57, 62.

of the growth models is that they have done just this. In so doing, they have used theoretical concepts—a procedure common to all model-making, whether in economics or natural science. It is surely no denigration of a model to say that it uses theoretical entities: just the opposite—that is its advantage over simple description. To ask for actual entities and nothing but actual entities (as Yeager does) is to ask for no theory at all.

The scientist is content to leave open the question of the "real existence" of his theoretical entities. He is more concerned with the usefulness of the theoretical concepts; he accepts or rejects a theory by criteria of explanatory and predictive success—not by any answer to the question of the reality of abstract entities used in developing the theory.[4] It must be recognized that an abstract entity can have meaning within the framework of a system even though it has no meaning outside such a context, and that once its status within the framework has been expounded there is no further question as to the ontological status of the theoretical concept.[5] Accordingly, the quest for "actual entities in the real world" corresponding to the natural and warranted rates of growth is misdirected: the concepts are given meaning indirectly by virtue of their positions in the complete model. The concepts have the function of providing a method for organizing our empirical knowledge; they are the means of making connections between pieces of empirical knowledge such as the propensity to consume and the capital-output ratio. As in any deductively formulated theory, the postulates of the Harrod-Domar-Hicks analysis are not verified or falsified directly, but rather by the accuracy or usefulness of the explanations which are derived from the model. However, instead of evaluating the Harrod-Domar-Hicks analysis on this basis, Yeager concentrates only on the issue of the real existence of the concepts used in the analysis.

Regarding the second alleged limitation of growth economics—the assumption of stable parameters—we may agree with Yeager that "the propensity to save and the marginal capital-output ratio . . . are not constants."[6] Rare, indeed, is the economist who would deny this. Certainly the Harrod-Domar-Hicks approach recognizes that the propensity to save and the capital-output ratio have a range of values.[7] It is only for the sake of analytical simplicity—and not because of any belief in its necessity—that the relationships are assumed to be linear. As several subsequent studies have shown, it is a relatively simple matter to incorporate variations in the propensity to save and

[4] *Cf.* S. Toulmin, *The Philosophy of Science* (London, 1953), pp. 30, 134-39, 165-67; R. B. Braithwaite, *Scientific Explanation* (Cambridge, Eng., 1953), p. 368.

[5] *Cf.* Braithwaite, *op. cit.*, pp. 80-85; Rudolf Carnap, "Empiricism, Semantics, and Ontology," *Rev. Internat. de Phil.*, Jan. 1950, IV, 20-40; F. P. Ramsey, *The Foundations of Mathematics* (London, 1931), pp. 260-61.

[6] Yeager, *op. cit.*, p. 57.

[7] R. F. Harrod, *Towards a Dynamic Economics* (London, 1948), pp. 78-79; E. D. Domar, "Expansion and Employment," *Am. Econ. Rev.*, Mar. 1947, XXXVII, 42-46, 48-49; Domar, "The Problem of Capital Accumulation: Rejoinder," *ibid.*, Dec. 1949, XXXIX, 1171-72; Domar, "Economic Growth: An Econometric Approach," *Am. Econ. Rev., Papers and Proceedings*, May 1952, XLII, 484-90; J. R. Hicks, *A Contribution to the Theory of the Trade Cycle* (Oxford, 1950), pp. vi, 2-3, 109-15, 170.

capital-output ratio into the basic growth models.[8] The general point is that the growth models do allow for a variety of effects; one can put many things into the formal boxes. The structural relationships of the model denote the logical framework of the problem of stable growth, but one can then introduce variations in the parameters to produce a variety of cyclical patterns. This is why the analysis has the merit of being able to reveal both the basic internal character of the cycle and the variations of cyclical experience.[9]

This procedure would be objectionable if (a) there were no dependable relationships between the variables considered in the models, so that variations in the parameters were unpredictable, or if (b) other variables—not considered in the models—might change in such a manner as to cause the saving and investment coefficients to so adjust themselves as to assure steady growth.

It must, however, be recognized that to be dependable a relationship need not be restricted to constant parameters. Whatever the shape of a function, it may nonetheless be stable in the sense of behaving in a dependable manner. All that this means is that the relationship is not haphazard, accidental, or wholly unpredictable. Yeager equates stability only with constancy,[10] and does not admit the possibility that even if the relationships used in growth economics allow for changing parameters they might still be dependable.[11]

[8] Although Hicks' analysis departs considerably from a simple acceleration principle, further departures from the overly narrow interpretation of the accelerator as a rigid single-valued technological coefficient can also be made: other writers allow for the role of profit expectations, level of capital stock, and optimum degree of utilization of plant capacity. *Cf.* R. S. Eckaus, "The Acceleration Principle Reconsidered," *Quart. Jour. Econ.*, May 1953, LXVII, 309-30; D. Hamberg, "The Accelerator in Income Analysis: Comment," *ibid.*, Nov. 1952, LXVI, 592-96; Hamberg, "Income Growth in Secular Stagnation and Inflation," *Econ. Jour.*, Sept. 1953, LXIII, 608-26; N. Kaldor, "The Relation of Economic Growth and Cyclical Fluctuations," *ibid.*, March 1954, LXIV, 54-55.

No matter how much the acceleration principle is broadened, however, it is difficult to deny its basic thesis that there is some relationship between the flow of output and stock of capital. It must also be acknowledged, as Yeager fails to do, that the growth models give a prominent role to other types of investment which are not governed by the rate of expansion of the economy.

[9] *Cf.* Hicks, op. cit., pp. 108-9.

[10] Yeager, *op. cit.*, pp. 57, 62.

[11] There is a corollary to Yeager's criticism of the assumed stability of the parameters, viz., the warning that the "logical implications" of a model may not be "directly applicable to the real world" (*ibid.*, p. 55). If this means that the application of a model to policy issues is a matter of particular contexts and the wisdom of the policy-maker, the point is certainly well taken. But, no less than other economic theorists, the growth theorists recognize this. Hicks disclaims policy prescriptions on the first page of his preface. Also, Harrod, "Supplement on Dynamic Theory," *Economic Essays* (London, 1952), p. 280.

Just as there is a division of labor in physics between statements of laws and statements about the ways in which, and the circumstances in which, laws are to be applied, so too there is a division of labor between the economic theorist and the practitioner who must find out how far and under what conditions the techniques of theory can be used. Theory can contribute, however, to an understanding of the relations between different policies and can indicate the possibilities of new policies not previously recognized.

II. *Monetary Issues*

More serious is Yeager's criticism that the Harrod-Domar-Hicks approach unduly neglects "such vital aspects of boom and depression as monetary conditions." He asks, "would not proper money management be bound to promote equilibrating adjustments in s [propensity to save], v [capital-output ratio], the ideal [warranted] growth rate, and the actual growth rate?"[12] And he concludes that "Nothing in the growth economics of Harrod and Domar has revealed forces in the real world that tend, quite apart from the behavior and management of money, to produce depressions and inflationary booms."[13] Thus he wishes to minimize the emphasis on nonmonetary factors; instead he wishes to ask questions in terms of Fisher's MV.

Yeager does not adequately demonstrate the superiority of the monetary approach. He merely states that when the actual rate of growth happens to be faster than the warranted rate of growth, this must mean that "MV is tending to rise," and therefore "restriction on growth of the money supply would seem to be the remedy for this inflationary situation."[14] This assertion rests on faith in the efficacy of credit rationing and rising interest rates. Regarding the contrasting situation when real income is actually growing more slowly than the warranted rate, Yeager states that an increase in the money supply could remedy this deflationary situation. This assertion rests on an affirmative answer to the question: "Since the size of people's cash balances affects their desires to save and to invest, would not relief of the excess demand for money through an increase in the money supply lessen the propensity to save or stimulate investment or both?"[15]

These assertions are not in themselves sufficient to support the conclusion that "no trouble from supposed discrepancies between various growth rates would occur under stable money conditions."[16] For "stable money conditions" is, of course, a question-begging term unless its meaning is explicated. Yeager must have in mind that a change in the money supply will affect prices,[17] interest rates, and/or the propensity to save in such a manner that changes in these variables will act as stabilizers. This, however, is not simply a matter of monetary mechanics. On the contrary, it requires the discovery of behavior relations connecting changes in M and V with changes in these variables, and some proof that the volitional actions of economic agents will be such as to produce stabilizing changes in prices, interest rates, and saving.

But once we begin looking for such behavior relations and volitional elements do we not soon come back to the techniques of the Harrod-Domar-

[12] Yeager, *op. cit.*, p. 61.

[13] *Ibid.*, p. 63.

[14] *Ibid.*, p. 60.

[15] *Ibid.*, p. 61.

[16] *Ibid.*, p. 60.

[17] Yeager does not emphasize the role of prices as stabilizers; but, as Alexander has shown, price flexibility may be sufficient to stabilize a highly explosive situation. S. S. Alexander, "Mr. Harrod's Dynamic Model," *Econ. Jour.*, Dec. 1950, LX, 737-39.

Hicks analysis? Is *MV* anything more than aggregate demand? (And if Yeager is disturbed about the measurement of *s* and *v*, should he not be just as concerned over the measurement of *MV?* Is not *V* also a functional relation which is no more constant than are *s* and *v?*) Further, are not changes in the price level dependent on the relation between the total flow of spending and aggregate supply? Is not the rate of interest the connecting link between a change in the money supply and investment; and is not this effect negligible if liquidity preference is highly elastic or the marginal efficiency of capital is highly inelastic?

Finally, if the level of consumption is made dependent on cash balances, must there not be some explanation of how the total stock of money is divided between liquid reserves and active circulation? As Tobin has stated,

> A variable is not useful in explaining the behavior of an individual if its magnitude is just as much subject to his discretion as the behavior which it is supposed to explain. An explanation of spending decisions must relate the spending of a household to determinants outside its control. This is the fatal objection to the hypothesis that the spending of an individual unit depends on the size of its cash balances, and to the macroeconomic hypothesis [that total spending will, other things being equal, vary directly with the quantity of money] derived from it. By exchanging cash for other assets, or vice versa, a household or firm can control the size of its cash balance extremely rapidly.[18]

All these questions have been discussed in the literature, and we need not dwell on this old debate. In contrast with Yeager's conclusion, however, it should be recognized that as a result of these discussions many economists see no basis for optimism regarding monetary policy: a widely held judgment is that the more realistic approach to monetary policy should be to keep it from compounding economic instability rather than to rely on an active monetary policy as the means of forestalling or correcting maladjustments in the economy.[19] The present writer, for one, would submit that nothing in Yeager's analysis controverts this judgment.

G. M. MEIER*

[18] J. Tobin, "Asset Holdings and Spending Decisions," *Am. Econ. Rev., Papers and Proceedings*, May 1952, XLII, 115. More generally, "any hypothesis which makes spending depend on the holding of a particular kind of asset, such as cash or liquid assets, runs afoul of several objections: (1) other assets are good, often perfect, substitutes for the selected types; (2) the composition of an individual's wealth is, at any time, subject to his own decision; (3) indebtedness should be treated symmetrically with asset holdings." *Ibid.*, p. 121.

[19] *Cf.* A. G. Hart, "Monetary Policy for Income Stabilization," in M. Millikan (ed.), *Income Stabilization for a Developing Democracy* (New Haven, 1953), p. 304.

Yeager's attention to monetary factors is actually limited to the problem of the cycle and does not relate to the more general problem of growth. While attention to the role of money in the cycle is relevant to Hicks' problem, it misses Harrod's preoccupation with a moving equilibrium of growth. The "dynamic equation" in Harrod's growth model is only relevant for determining the trend of a cycleless economy. If Yeager wished to emphasize the monetary factor in a refutation of Harrod's model, he should have demonstrated how the money supply would affect this trend. This he did not do.

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Reply

Growth economics purports to show that inflations or depressions (or even economic stagnation) occur unless total output grows at a rather definite "warranted" rate, all of which depends mainly on "real" rather than monetary conditions. These conclusions derive from the arbitrarily assumed stability of certain relationships. Growth economics thus grinds out alleged facts about the real world without drawing on observed facts about technology or human decision-making or on other facts about the real world. This, my chief worry about growth economics, Professor Meier does not even *try* to dispel.

Meier says I "believe that all the concepts of science have their counterparts in 'actual entities in the real world' " and that I "ask for actual entities and nothing but actual entities." Apart from misinterpreting me, Meier, in making these charges, does summarize pretty well some elementary notions of scientific method. *Of course* theoretical "concepts have the function of providing a method for organizing our empirical knowledge; they are the means of making connections between pieces of empirical knowledge. . . ." It was more than uncharitable to suppose I meant otherwise. In accusing the growth theorists of "conceptual realism" (which term is not original with me), I was complaining not about their use of concepts not corresponding to actual entities in the real world but rather about the consequences of their tacit assumption that certain of their concepts *do* so correspond. I was complaining further that the growth theorists fail to make what Meier calls "connections between pieces of empirical knowledge." Despite what Meier apparently claims, the Harrod-Domar-Hicks techniques do not bring in "behavior relations" and "volitional actions of economic agents"—quite the contrary.

A complete monetary interpretation of boom and depression was beyond the scope of my article. I said enough, however, to show that growth theory rests on hidden—and probably unrealized—assumptions about money. Recall, for example, my points about the acceleration principle on page 58. In citing recent embroidery on the accelerator idea, Meier hardly meets these points. If he had felt able to refute my argument that the nightmares of the growth theorists presuppose monetary instability (in the sense of my discussion), Meier might well have taken up the challenge of my two final questions.

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Review of Friedman's "Essays in Positive Economics": A Correction

My attention has been called to a serious error which I committed in my review of Milton Friedman's *Essays in Positive Economics*, published in the June 1954 issue of this *Review*, in implying that the leading essay, "The Methodology of Positive Economics" was available elsewhere, whereas in fact only a very brief portion of this 40-page essay was taken from *A Survey of Contemporary Economics*, Vol. II, the bulk of it being new. This crime was compounded by my omission of any discussion of the content of this essay, which is, among other things, a vigorous statement of the thesis that theories

should be judged by the accuracy of their predictions and not by the "realism" of their assumptions. I can only plead a diffidence towards venturing with appropriate brevity into the difficult field of methodology and hope that my delinquency will not detract too much from the attention this stimulating piece gets both from those who are and those who should be interested in methodology.

WILLIAM VICKREY

Dernburg's "Germany's External Position": A Correction

A printing error involving a transposition of materials occurred on page 533 of H. J. Dernburg's article "Germany's External Economic Position" in the September 1954 number of this *Review*. The material below Table II should have appeared at the top of page 533, and vice versa.

BOOK REVIEWS

Economic Theory; General Economics

The Frontiers of Economic Knowledge. Essays by ARTHUR F. BURNS. (Princeton: Princeton University Press, for the National Bureau of Economic Research. 1954. Pp. ix, 367. $5.00.)

The publication of a collection of the scattered essays of a leading economist is not always a self-justifying venture; too often what results is a left-over supper of competent crumbs, nourishing only to a few scholars hungry enough to have done their own foraging long ago. The present volume, however, is an outstanding example of the value that such a collection can have. The essays collected here, linked by their common concern with business cycle research, convey a philosophy of economic research and an understanding of its processes far more convincingly than could a treatise explicitly devoted to the subject. The successive annual reports on the work of the National Bureau which make up Part I of the book provide both a conspectus of the Bureau's findings and methodology, and an indication of its evolution during what may turn out to have been a significant phase of transition in its history. These reports, and the eight "Related Essays" collected in Part II, also furnish some clues to the personal and professional qualities of their author, clues of special contemporary interest in view of the high responsibilities which he has recently assumed for the conduct of American economic policy. Finally, quite apart from their economic content, these essays are models of good economic writing, combining expository skill with wide knowledge and broad conceptions in an eminently readable literary style.

Unlike the reports of some other research institutions, Burns' reports on the National Bureau's activities are not mere summaries of work in hand and projects completed. His usual practice is to select some broad problem of contemporary interest and discuss its scientific aspects, using the findings of the National Bureau to illustrate and support his argument. Consequently the Reports have lasting value as essays on economic methodology, even though they suffer at times from certain inherent promotional and inspirational biases and a somewhat restrictive concern with transitory phases of American economic thinking.

The Reports also contain useful surveys of the Bureau's research findings and plans for further research. It is, indeed, possible to discern various trends in the successive reports, or perhaps a change of emphasis between the reports written before and after the death of Wesley Mitchell. The early reports, while directed at the problems of employment policy, are written at a relatively high level of abstraction and are chiefly concerned with the nature of economic knowledge and research; the later ones start much closer to current policy problems and tend to be concerned with the presentation of relevant

facts. The earlier reports tend to imply a continuation of the Bureau's research along familiar prewar lines; the later reports suggest a new emphasis in future research on the expanding role of government (p. 144) and the effectiveness of governmental policies (p. 181).

These differences reflect the clarification of the broad outlines of the postwar economic system, and a reorientation of the Bureau's research objectives (not without some groping for new ideas) to match the new government-dominated framework of economic activity. But the basic philosophy of the Bureau remains substantially the same throughout the successive reports: on the one hand, there is the emphasis on the business cycle as the central problem for economic research; on the other, there is the insistence that scientific economics consists in the accumulation and analysis of the facts of economic experience.

Dr. Burns' views on economic methodology are developed most explicitly in the first three reports—"Economic Research and the Keynesian Thinking of Our Times," "Stepping Stones towards the Future," and "The Cumulation of Economic Knowledge"—essays whose merits need no recommendation from this reviewer. Most of what he has to say about the necessity of testing hypotheses and conclusions against facts should by now be common ground among economists, as should his strictures on the reliability of simple aggregative theory and his cautiousness on the subject of forecasting. Disagreement centers rather on the detailed application of these principles, and particularly on the balance to be struck between the accumulation and the analysis of facts. Given an inverse relation between multiplicity of facts to be analyzed and the power of the statistical methods that can be applied to them, and the desirability of simplicity of explanation where possible, there would seem to be a stronger case for aggregative model-building and testing than these reports allow. There is also, perhaps, more to be said for simple economic theories as tools for organizing thought about (as contrasted with providing solutions to) complicated economic problems than Burns allows.

Part II of the book consists of essays written for a variety of purposes. It includes the stimulating introductions to Mitchell on *What Happens during Business Cycles* and Hultgren's study of *American Transportation in Prosperity and Depression;* Burns' reply to Hansen's attack on his interpretation of Keynes, in which Burns is perhaps too obviously aware that he has the best of the argument; and his masterly, politely devastating review of Hicks' blithe effort to solve the riddle of the trade cycle. Also reproduced is his reconciliatory, if slightly patronizing, discussion of the papers presented by Koopmans and Gordon at the 1948 meeting of the American Economic Association, which contains some penetrating remarks on methodology; and two earlier and contrasting reviews—a sympathetic and helpful appreciation of careful work by a fellow-researcher ("Frickey on the Decomposition of Time Series") and a curt sketch of how a shoddily done piece of work should have been tackled ("America's Capacity to Produce")—which illustrate the author's high standards of economic research. The famous article on "Long Cycles in Residential Construction" completes the collection.

These essays, much more than the reports, reveal Burns' qualities as a well-rounded and highly competent economist, able to appreciate both fine points of theoretical analysis and the relative merits of alternative research approaches, behind whose own work lies a consistent and seasoned philosophy of economics. They do much to correct the impression, occasionally given by the reports, of a dogmatic adherence to one research technique and blanket opposition to aggregative reasoning and intricate analytical methods. What Burns is chiefly opposed to is theoretical generalization unchecked by facts, and the unthinking mechanical application of both theoretical and statistical methods to practical problems; his ultimate test of methods is their capacity to produce reliable and useful results.

The reader of a book of this kind must expect to encounter both repetition of facts and ideas, and inadequate treatment of aspects of the subject in which he is interested. So it is here; but the repetitions illuminate and clarify the central theme, and the reader is seldom left without a fair idea of what Burns would reply in answer to the questions he would like to put. The essays can, indeed should, be read as a whole; as such they are profitable reading even for economists not specially interested in business cycles.

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A Critique of Socioeconomic Goals. By HENRY M. OLIVER, JR. (Bloomington: Indiana University Press. 1954. Pp. vii, 191. Paper, $2.50; cloth, $3.00.)

Like many other college teachers I have often wanted to be able to refer my students to a brief but sound critique of such common economic goals and philosophies as natural rights, *laissez faire,* distribution according to earnings, and equality. In welfare economics, distribution theory, comparative systems—for that matter, in any applied economics—student competence is never lower than when exercised on problems of criteria. And in this area it is especially true that what the student does not know is less dismaying than all the foolishness he takes for fact. Perhaps the economist has been deterred from attempting more in this field than the fragmentary essay built upon a limited number of insights because he knows that banality walks hand in hand with comprehensiveness. Then too, extinguishing the tiresome clichés of amateur economic philosophers calls for timely, patient persuasion more than for proof, which suggests that no one critique will be flexible enough to succeed in more than a few kinds of situations. Actually, one needs to become a collector of intellectual curiosities to appreciate the variety of forms in which even thoroughly discredited doctrines reappear. I do not think, however, that these are sufficient reasons for not attempting a summary critique; and we should be grateful to Oliver for providing us with a good one, improved by his own contributions to the historic controversies.

Oliver has outlined the most common positions taken on questions of economic policy, systematically moving in each case from the statement of the position itself back through an appraisal of the grounds on which it might be supported or on which attacks on it might be rebutted. Some of the positions

evaluated are, he recognizes, already intellectually discredited (but worth analysis because of their continued influence); some are still controversial in academic circles; some are widely accepted as valid. His principal headings are: natural liberty; distribution according to earnings; equality; maximum satisfaction; status; less specifically economic goals like national unity, internal order, survival of the fittest, and triumphant proletarian revolution. A final chapter discusses possible cumulative tendencies in government intervention.

The argument is at all points cut short by Oliver's decision not to work all the way back to fundamental ethical theory. This means that his book is largely a study of the internal consistency of various positions on economic policy, though to some extent also an examination of the correctness of the facts customarily cited to justify a position. Or, to indicate the scope of the study by what it is not, Oliver does not declare his own ethical position, whether pragmatist, positivist, authoritarian, or religious, and then proceed to judge in the light of it. While his self-imposed constraint produces some confusion at points where it appears that he must take a stand but refuses to do so, it is a wise constraint; and the confusion is therefore to be accepted without protest. To go further would be to write a different book for a different audience.

As suggested above, the ordinary approach to economic philosophy is the fragmentary one of scattered but sometimes flashing insight, and if an original idea is provocative enough we do not even ask that it be valid. For more comprehensive efforts like Oliver's, it is too much to expect of any man that he have something new to say on every point. Consequently most of what he writes must be worth reading by some standard other than originality; in short, it must be correct. But the greatest difficulty in economic philosophy is that nobody knows what is or is not correct. Logic serves to reveal errors of inconsistency, but it takes a better social science than has so far been constructed to expose all the fancy that pretends to be fact. This, as Oliver knows, is the weakness of writing in this field, his own writing included. Where he is forced to go beyond demonstrated fact to judgment, his tactic is to make the most of agreement among social scientists as a guide to truth. Fallible as this method is, it is probably the best available; but of course every reader must judge for himself whether social scientists agree on what Oliver believes they do. For what they agree on, as Oliver recognizes, is itself one of the unknown facts.

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L'Interaction des marchés: La liaison horizontale. By Marcel F. Capet. (Paris: Librairie Armand Colin. 1952. Pp. 203. 750 fr.)

This volume is the third in a series of *Etudes et Mémoires* published by the *Centre d'Etudes Economiques,* which was established in 1951 by Section VI of the *Ecole Pratique des Hautes Etudes* to encourage research and other professional interchange in economics. M. Capet is a lecturer at the University of Lille.

The author defines the "horizontal connection" of markets most broadly. It includes all interdependences among the demands and supplies of products and factors in the same stage of production, both from the point of view of individual households and firms and also with respect to the relationships among those households and firms. Save only that vertical market relationships are excluded from consideration, the nominal scope of this study is thus nothing less than the general equilibrium of the entire economy. Having defined horizontal market relationships in this all-embracing way, however, Capet actually treats his subject more selectively. This is understandable, but it also implies some disparity between the author's actual analysis and his more general definition of the *liaison horizontale.*

The work is divided into two main parts. The first is devoted to "the nature of the horizontal connection," with chapters focussed on (1) the consumer, (2) the producer, and (3) various definitions of complementarity and substitutability as proposed by different authors. The second main part of the book concerns "the influence of the horizontal connection on the formation of prices," under conditions of both perfect and imperfect competition and also in the light of certain "nonrational practices." The study concludes with a sketch of a dynamic analysis, including a consideration of the stability of equilibrium as based on an extension of the cobweb theorem to the case of connected markets. The orderliness of Capet's discussion is one of its chief merits. If he has not altogether resolved the challenging questions that he considers, he has at least called attention to an area where the difficulties and ambiguities of analysis are perhaps greater than most economists casually suppose.

The horizontal connections among consumer demands are studied under three headings: (1) a "revenue effect" occasioned either directly by a change of consumer income or indirectly by a change in the price of a consumer good; (2) a "real effect" involving the complementarity or substitutability of goods in the eyes of consumers; and (3) a "need effect" based on changes of tastes, such that goods are labelled "sympathetic" or "antagonistic" (pp. 25-26) according as taste-changes cause the demands for the goods to change together or oppositely. The ambiguity of this notion should be apparent; for tastes can surely change in an inexhaustible variety of ways.

The first two effects bear only a family resemblance to the Hicksian income and substitution effects; for Capet prefers to measure complementarity and substitutability in terms of the older criterion of the effect on the marginal utility of one good as the quantity of another good is changed (pp. 7 and 34). He fails to notice, however, Hicks' criticism that this species of complementary-substitutable relationship is not invariant under transformations of the utility index. Thus mere changes in the cardinal numbering of a given ordinal-utility function, implying unchanged consumer's behavior, can turn substitutable goods into complementary ones on this definition. At another point (pp. 68-69), Capet also offers a purportedly equivalent definition based on the effect of a change in one good's quantity on the *total* utility of another. This is meaningless; for, in the case of dependent utilities, the separate total utilities of the

various goods are not distinguishable. In general, Capet's discussion of the alternative definitions in this area consistently underestimates the substantive differences among them.

His discussion of complementarity and substitutability on the production side suffers from similar defects. With respect to factors used for a single good, for example, Capet has no difficulty with the limiting cases of perfect substitutability and fixed-proportion complementarity; but he then makes no serious attempt to distinguish these contrasting phenomena in the intermediate area, where he is content with just a single "intermediate case" (p. 45)—"that of complementarity or substitutability with variable proportions (case no. 3)." As he later says with reference to a specific illustration (p. 50), "One can then say that the degree of substitution between capital and hand-labor is weak or that there is complementarity with variable proportions." In another context (pp. 73-75), mention is made of the definitions based on (1) the second-order cross-derivative of product with respect to two factors, and (2) the Hicksian substitution effect; but Capet displays no consistent interest in either of these.

The confusion is even greater with respect to the complementarity or substitutability of products. Thus Capet says (p. 55), "The only necessary and sufficient condition for supplies to be *complementary* . . . is that the two goods be obtained in the *course of the same process of production*" (original italics). It is therefore no surprise when he concedes (p. 56), "It is difficult to distinguish between complementarity with variable proportions and substitutability with variable proportions." Indeed, the definitions that he interpolates at this point are hopelessly ambiguous: as among three goods produced by a firm, "A and B will be complementary, if when the quantity of A is increased, that of B increases at the expense of C. . . . A and B will be on the contrary substitutable if, when the production of A is increased, that of B and C diminish."

Because this is a work of essentially pure theory, these blemishes are all the more serious. Yet any theorist who might wish to undertake his own systematic attempt to analyze the horizontal connection of markets will find much that is stimulating in Capet's discussion—especially his copious references to the empirical literature, his passing "sociological remarks," and his comments on the financial and social ties that sometimes bind technically dissimilar productive activities within the same entrepreneurial complex.

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International Economic Papers, No. 3. Translations prepared for the International Economic Association. Edited by ALAN T. PEACOCK, RALPH TURVEY, and ELIZABETH HENDERSON. (London and New York: Macmillan. 1953. Pp. 255. $3.50.)

The first three papers in this collection are more than enough to make English-speaking economists grateful to the International Economic Association for continuing its series of translations. Students of business cycles in particular will hail the appearance at long last of English translations of Spiethoff's famous article, "Krisen," originally published in 1923, and Wicksell's 1907

article on "The Enigma of Business Cycles." The third "find" in this collection, for those not able to read Swedish, is Tord Palander's penetrating essay, "On the Concepts and Methods of the 'Stockholm School.' "

Spiethoff's paper, which appears here in slightly abridged form and with a new introduction by the author, still deserves careful reading. The brief summaries found in most of the standard textbooks scarcely do him justice. Among the strong points of the essay are the author's emphasis on the diversity of cyclical experience, the skillful way in which he distills from this diversity the sort of "analytic description" that Wesley Mitchell did so well, his historical perspective and sober eclecticism, and the keen analysis of the interrelations between cyclical fluctuations in investment and the course of economic growth.

It is a mistake to dismiss Spiethoff merely as a representative of the "nonmonetary overinvestment" or "real capital shortage" school. See, for example, his fairly eclectic explanation of the upper turning point (pp. 157ff). Spiethoff cites both capital shortage and the temporary exhaustion of investment opportunities as causes of the downturn. Since his concern was with the period up to 1914, he emphasized the former, but he is careful to observe (p. 158) that: "capital scarcity occurs with less vehemence in the old capitalist countries than in the new ones . . . due to the fact that the old countries are more advanced with respect to their equipment with investment goods and that with them overproduction is more strongly affected by the saturation of demand and less by capital scarcity."

To a reader coming to it for the first time, Wicksell's paper is something of a disappointment. It is addressed to the single question as to how inventories behave in the cycle—whether they expand in boom or depression. His argument is that they expand during depression and that this provides the "free capital" necessary for the next spurt in investment. Included also are the elements of a theory of growth and fluctuation, centering around the creation and exhaustion of investment opportunities. As it turns out, the full article adds little to the summary, already available in English, which Wicksell incorporated in the *Lectures*.[1]

Palander's long essay is cast in the form of a critique of Myrdal's *Monetary Equilibrium* through its successive versions in Swedish, German, and English. Actually it carries off successfully a much more ambitious task—to review critically the concepts and methods of the whole "Stockholm School." I should say that it succeeds brilliantly, and I recommend it as required reading for graduate students and others seeking to become acquainted with the content and assumptions of the neo-Wicksellian monetary theory of the 1930's. It is a much more penetrating (and therefore more difficult) analysis than Ohlin's familiar summary, and the latter can perhaps be used as an introduction to Palander's paper.

Space limitation permits only mention of the other papers in this collection: a curious and unprofitable debate (in 1900-01) between Croce and Pareto "On the Economic Principle" (which is likely to be the least read selection in this

[1] Lionel Robbins, editor, *Lectures on Political Economy*, Vol. II (New York, 1935), pp. 209-14.

volume); a judicious analysis of "Customs Unions and National Interests" (1950), by Maurice Byé; a highly formal and (I suspect) not very profitable "Comparison of Marxian and Keynesian Dynamics" (1950), by Hans Peter; and an interesting short paper (1951) on the concept of underemployment in underdeveloped areas by Alfredo Navarrete, Jr., and Ifigenia M. de Navarrete. The last selection is particularly to be welcomed since it represents the first paper by Latin-American economists to appear in these volumes of translations.

R. A. Gordon

University of California, Berkeley

Economics, an Introduction to Analysis and Policy. By George Leland Bach. (New York: Prentice Hall. 1954. Pp. xvi, 720. $6.00.)

The slight change in title indicates that Professor Bach of Carnegie Institute of Technology, in going it alone in this new volume, is still following the basic pattern of the earlier, widely used *Economic Analysis and Public Policy,* and he generously recognizes in the Preface the contribution of Dr. Mary Jean Bowman, his former collaborator. Again the book is divided into three parts: Introduction, Analysis, and Public Policy. These parts are subdivided as previously into eight books with a new ninth one added on "Comparative Economic Systems."

Economics, an Introduction to Analysis and Policy is definitely planned as a text for a two-semester course, but a suggested one-semester outline is included and Bach states that the book has been equally successful for a half or a full-year course. An effort has been made to make the style fresh and less dull than many other American texts, although it does not approach the brilliant style of some British works. The factual material has been updated to 1952 and 1953, but it is amazing how quickly times change; for example, the rapid shifts in Treasury and Federal Reserve policies in 1953-54.

Bach states that one of his main purposes is to give the student who is beginning the struggle with national income, market prices and related policy issues a small kit of the key tools of economic analysis so that the student himself will be able to analyze present and future economic questions. He even includes a chapter on "Straight Economic Thinking." To each chapter he adds a series of provocative questions for student analysis and discussion, the answers to some of which may hinge on points not treated until later in the book. In spite of all Bach's efforts to induce clear thinking, the student reader may perhaps at times become confused or uncertain when a whole line of reasoning based on one set of assumptions is followed quickly by another set without any evaluation of the different assumptions. The discussion of incidence of social security taxes and workmen's compensation costs (pp. 539-40, 629) seems to be a case in point.

Although this volume is shorter than the earlier work, perhaps the equivalent of a whole chapter might further have been eliminated if he had cut to the bone the exhortation of students to think ("Make up your mind whether you think this is good or bad"), as well as many of the sections which tell the

students just how particular material is related to other chapters and divisions. To point out the interrelationships in economics is important, but the mechanics can be overdone. Certainly this reviewer would like to see a closer integration of Books II and VII. In fact, Chapter 32 on "Fiscal Policy and Economic Stabilization" seems almost naked without mention of either the multiplier or the accelerator. The labor material scattered in Books IV, V and VII might also have been treated more effectively if brought together.

The road of every textbook writer, however, is paved with hard work, good intentions and sharp criticism from reviewers and instructors who find their pet subjects neglected or not handled in the "best approved" manner: *i.e.*, the way they have taught the section for years, or the findings they have included in their latest journal article, or the approaches they followed when they worked for the federal government. Ex-OPA'ers, of whom many are now teaching elementary economics and who may become aroused by statements on pages 478 and 548, should keep on reading to pages 593, 611-14 before making a final judgment.

Little of the current popular emphasis on economic development and the difference between underdeveloped and developed economies is found in this volume. In fact the relativity of economic policy is often omitted. It is easy in the wisdom of 1954 to be so critical of certain experiments in the 'thirties that their significance to that period is lost. In a similar vein, it seems unfortunate for an economics text to refer to Adam Smith only three times, Karl Marx twice, and only mention Ricardo, Mill and Marshall in passing—the last three not even listed in the index. It is good to emphasize the present and the future as Bach does (see, for example, p. 66), but it would be undesirable if the reader thought of economic problems only as contemporary issues. It seems a sad commentary on the American scene that a prologue to the last chapter on comparative economic systems had to be included in a land that prides itself on freedom of thought.

The economic incentive of royalties usually lures textbook writers to include material to appeal to as many of their erudite colleagues as possible. Bach restrains himself admirably in not cluttering the text with too many footnotes or bibliographies to impress the instructors and confound the students. Unlike a lengthy text such as Harriss (*The American Economy,* 1953) Bach wisely resists much detail and concentrates on the main points to give the student a sharper picture of economics. Unlike the new Baumol and Chandler text *Economic Processes and Policies,* 1954, which emphasizes the national income approach and relegates price analysis with its cost curves to an appendix, he includes about equal doses of the macro and the micro approaches, the order of which is interchangeable. Bach, however, will not completely please the ardent curve benders because he sensibly, in the opinion of this reviewer, limits the number of curves presented.

One of Bach's main contributions lies in his relating the analysis of the price theorist to the decision-making of the business leader. Some economists may find these approximations rough, but this reviewer has hopefully decided to expose his students to this approach of Bach's. Because of its many strong

points, this book will undoubtedly have many adoptions. But in a field abounding in innovation and competition one text cannot dominate the market.

EVERETT D. HAWKINS

Mount Holyoke College

A Key to Modern Economics. By DAVID MCCORD WRIGHT. (New York: Macmillan. 1954. Pp. x, 520. $4.75.)

Mr. Wright's refreshing and well-written contribution to the array of texts in introductory economics has three distinctive interlinking traits: (1) it is consistently and successfully oriented around a long-term dynamic view; (2) it treats socialistic economic organization integrally with other questions, not merely in a special chapter or section; and (3) it derives further unity and punch from an explicit, reiterated philosophy of "fluidity, opportunity, and growth." These features, along with a style of writing that avoids talking down to students, will be no surprise to economists familiar with the author's previous writings. On all three scores this reviewer is largely in sympathy with the author, although she has objections of varying magnitude to their expression—minimal on the first point, greatest on the third.

In the skill and consistency with which Wright has developed a dynamic frame of reference this text is pathbreaking. The problem of unemployment and business cycles is viewed as a problem of balanced growth, and the meaning of competition and monopoly is developed in an equally dynamic context (reminiscent of Schumpeter). It would be hard to find an equally balanced text with a comparable awareness of the time dimensions of economic activity. Even those books that center almost exclusively on national income and business fluctuations often fail to put across adequately a basic dynamic orientation; vestiges of equilibrium analysis too often creep in the cellar window even as static micro-analysis is being kicked out the back door. Wright is guilty of neither of these mistakes. What he may lose in mental exercises by refusing to foist an employment or national income equilibrium concept onto his macroeconomic analysis, he gains in a pedagogically more effective treatment of change and flux. On the other hand, while static-equilibrium and marginal analysis receives only limited attention it is treated with respect and hence constructively. In connection with this material Wright states: "though equilibrium analysis is not enough, *in itself*, the experience of most people in the field has been that a mastery of its tools and methods is an indispensable preliminary to the working out of more dynamic ideas. It is true that if you want to build a house you cannot stop with the foundation. But it is equally true that if you build a house without a foundation the result is apt to look pretty lopsided." This reviewer would add that unless some of the basic elements of neoclassical economics are given adequate recognition it is almost certain that economic analysis will be turned into a political tool of restrictionist planning that blocks the "fluidity, opportunity, and growth" with which Wright is so concerned.

Yet there are certain qualities of this book—quite aside from its polemics—that leave this reviewer a bit uneasy. Short of testing the book in the classroom (and even then the results of the test would depend as much on the teacher

as on the text) it is hard to say whether Wright's treatment would encourage rigorous or loose thinking. Many things are packed into a free-flowing exposition that should maintain interest but might misfire by failing to force students to approach problems analytically. Paradoxically, the chapter on national income accounting seems to stick out like a sore thumb because it so obviously requires careful study and clear thinking that might be more easily avoided in other sections of the volume. (Unfortunately, the immediately preceding discussion of growth and national income omits ordinary aids such as graphs of time series, and Figure 2 on the flow of Money, Saving, and Production may prove more difficult to translate than the ideas it is supposed to clarify.) In contrast to his elaboration of national income concepts, Wright skirts around the concept of competitive supply with the result that no ordinary reader would suspect that such a concept existed or had meaning in the making and implementation of public policy. Like many others, Wright skips over the concept of "opportunity cost" with only casual reference, and he fails *by inches* to point up the significance of resource allocation problems. Yet he could have remedied these gaps with only minor changes in his presentation.

The most serious weakness of this book is closely related to what many people (among them this reviewer) would regard as one of its virtues—an overtly expressed dynamic philosophy presented as a standard for the evaluation of public policy. The author carries the ball out of bounds. With well-founded arguments he mixes more dubious assertions in support of his point of view, and he occasionally builds up his case by caricaturing the opposition. Thus a strained and somewhat aggressive defensiveness with respect to socialistic arguments is evidenced from early in the book. On page 267 he states: "There is no discernible trend in the share of the national income going to labor. Thus it is doubtful whether the claim of trade unions that they are able to increase labor's share in the national income is a valid one." On page 270 he states that "There seems to be a definite upward trend in the compensation of employees as a per cent of total personal incomes." The reviewer happens to agree with Wright's conclusions about the long-term effects of unions on labor's share, but she can still deplore this selective method of argumentation. Again at the end of his book Wright throws away his case by pressing it too far. In a summary discussion of communism he twists the communist dogma of "from each according to his ability, to each according to his need" into the following: "Communists believe that in the communist phase inequality will be *in reverse.* Everybody will do only as much as he can, but he will take out as much as he wants." Such lapses are both bad pedagogy and, it may be suspected, even worse capitalist propaganda!

It is a pity that Wright allowed his work to be marred by occasional polemical excesses, for whatever its other defects (and they would be debatable) this book is an original and constructive contribution. In writing a genuinely dynamic book he has done a job that was crying to be done, and a job that was far from easy.

Mary Jean Bowman

Lexington, Kentucky

Economic History; National Economies; Economic Development

Federal Debt-Management Policies, 1865-1879. By Robert T. Patterson. (Durham: Duke University Press. 1954. Pp. xi, 244. $4.50.)

This is a detailed study of federal debt-management policies during the fourteen-year period between the end of the Civil War and the resumption of specie payments, undertaken by the author in the belief that "the experience then with a large and unwieldy debt and a fiat paper currency may be profitably reviewed by those to whom the fiscal and monetary problems of the present are of interest and concern" (p. vii). In view of this highly commendable purpose it is somewhat disappointing to find that the important lesson which the period 1865-1879 offers the future is "how the great Civil War debt dominated the loan markets, and how, through the interrelationship of debt policy and monetary policy, its management affected every aspect of the economy" (p. 215). Here surely is a lesson which few students of contemporary fiscal and monetary theory need to turn to nineteenth century financial history to learn.

The major objective of post-Civil War monetary, fiscal and debt policy, Patterson finds, was to reduce the level of the public debt and of prices in general to the point where a return to the gold standard at the prewar value of the dollar would be feasible. He relates his analysis of debt-management problems solely to this objective and thereby limits rather severely the current significance of what he has to say. Of particular regret to this reader is the lack of any discussion of the desirability of a return to the gold standard at some value for the dollar other than its prewar one and of any analysis of debt management as part of an antidepression monetary and fiscal policy, in spite of the fact that the period covered includes one of the major depressions experienced by the United States.

The conclusions to which Patterson's study brings him include the following:

1. He approves the 1865-68 conversion of the large mass of demand and short-term debt into bonds redeemable in five and payable after twenty years, basing his approval primarily on the increased freedom of action thus given to the government and on the effect of the move in enhancing public credit. The reader may well doubt the general validity of this latter point, together with the related one, made elsewhere, that debt retirement necessarily improves the public credit. It could be wished that the author, instead of giving such emphasis to this specific conclusion, had explored the more general one that the public's confidence in the government's ability and willingness to meet all contractual obligations arising out of the issuance of the debt is the important underlying factor, and that the retirement of debt or its conversion into longer-term securities need not affect this level of confidence significantly.

2. He severely criticizes the 1871-79 policy of refunding a considerable portion of the debt into securities payable only after thirty years and not callable at any earlier date, on the grounds that it limited the freedom of the government to take advantage of the subsequent fall in interest rates or to retire public debt to the full extent permitted by excess revenues. He also

argues that the policy lengthened the life of the awkward and inadequate banking and currency system then existing and may also have helped to perpetuate the high tariff system by providing additional uses for the funds it brought in.

3. He argues that "... debt reduction ... in conjunction with the regressive tax system, had the effect of distributing a part of the earnings of all the people to a comparatively few bondholders. This increased the rate of saving and investment and resulted in a higher national income" (p. 220). In the second sentence the author seems to have elevated a possible effect of debt reduction to the level of a necessary result.

4. He finds that debt-management policy aided the monetary policy of the period by giving elasticity to an otherwise inelastic currency system. The public's supply of money could be contracted by allowing surplus revenues to accumulate in the Treasury instead of paying them out by retiring part of the public debt, and the money supply could be expanded by buying securities on the open market.

Quite apart from these possible lessons for the future, the reader will find Patterson's book an admirable compendium not only of the financial policies pursued by the federal government in the period 1865-79 but also of all shades of thought on the major financial issues of the day.

George F. Break

University of California, Berkeley

Economic Change in America—By Joseph T. Lambie and Richard V. Clemence. (Harrisburg, Pa.: The Stackpole Co. 1954. Pp. 599. $5.75.)

A generation ago such collections as Bogart and Thompson's *Readings in the Economic History of the United States*, or Flugel and Faulkner's *Readings in the Economic and Social History of the United States* had considerable vogue. These were largely collections of inaccessible primary sources and represented views of contemporaries in different eras on important developments. They have not lasted as teaching devices. The average college student does not easily grasp their significance or drama. In 1947 Louis Hacker produced his celebrated *Shaping the American Tradition* with brilliant introductions to each section of source readings. Now Professors Lambie and Clemence go one step further. Their readings contain no primary source materials; they are interpretations and studies by 20th century scholars. Only two articles were published bfeore 1939. The central theme, as the title suggests, is economic change. Especially emphasized is the fact that "the innovating activities of entrepreneurs" have led to "continual growth of all sectors of the economy." The book, unconsciously, is almost a memorial volume to the late Joseph Schumpeter and to Arthur Cole, both of Harvard. The authors in their selections, and the writers in their interpretations and summaries, reveal a United States which has adjusted itself fairly well to the challenges of many rapid changes in the past 150 years.

The selection of articles is well-balanced. About half of the authors are economists, about half historians, and there are one or two sociologists, political

scientists and others as well. Of the 37 articles seven come from the *Journal of Economic History,* eight from *Agricultural History,* eight from books or monographs, and the remaining 14 from nine learned journals, chiefly economic ones. The book is divided into nine sections in the order given, namely, Economic Change, Transportation, Industrial Organization, Technology and Manufacturing, Land and Natural Resources, Agriculture, Banking and Finance, Labor and Population, and The State and the Economy. Two areas usually found in American economic history studies are missing, namely, The Westward Movement and Domestic Commerce, although these are touched on lightly in other sections. Every section has a brief introduction on the major developments in that area, the central theme of each article, and the chief writings of the respective authors. The book has no index.

Throughout the book the importance of innovation is stressed. In two opening articles on economic growth and creative response, Joseph Schumpeter emphasizes the differences between "adaptive response" and "creative response," between an inventor and an entrepreneur, and between invention and innovation. "It is in most cases only one man or a few men, who see the possibility and are able to cope with the resistance and difficulties which action always meets with outside the ruts of established practices" (p. 12). Thus it is that innovators command high salaries and also are likely to make history.

The book has many provocative articles. They fall into three categories. First are new interpretations in American economic history, like Schumpeter's. Others of this sort are Leland Jenks' study emphasizing the tremendous stimulus railroads gave to our economic development, Edward Kirkland's delightful analysis of Andrew Carnegie, Theodore Saloutos' sensible explanation of the real reasons for agricultural discontent in the 19th century, Wesley Mitchell's comments on how the wider use of money affects our attitudes and customs—it makes us more conscious of income and less so of expenditures (p. 393)—and Dorothy Brady's analysis of wage earners' model budgets during the last 60 years.

A second category of articles is exploratory in nature. F. L. Paxson explores the rise of the hard-road movement in the 20th century; Rupert McLaurin delves into developments in electricity when radio was born; H. R. Bartlett discusses the growth of scientific research in colleges and industries since 1802, when the elder Benjamin Silliman was appointed professor of chemistry at Yale and promptly given a leave of absence "in order that he might acquire the necessary knowledge and experience" (p. 208). Fritz Redlich opens up the relatively unexplored area of investment banking as seen through the policies of five leading houses. Fred Shannon wittily exposes the "safety valve" fallacy. S. C. Gilfillian says an inventor was great only if he gave the world something for which there was no adequate substitute and which someone else would not have devised soon anyway. He shows how few qualify for honors. And William Miller explores the background of American business leaders of 1910 and finds they came not of poor families but of middle-class ones.

Third, there are several brilliant summary articles in which the act of condensing the material has produced some valuable new conclusions. W. S.

Greever's summary of railroad land-grant policies is especially outstanding and Bray Hammond gives an exceptionally able account of commercial and central banking in just 23 pages. There are other good articles I do not have the space to mention. There are more economic theories applied and more provocative ideas developed in this collection of readings than will be found in almost any American economic history textbook.

The question arises as to where this book will be most usable. The majority of articles would not be suitable at lower-class levels in most colleges or universities. Graduate students should be sent to the journals and books to increase their bibliographical knowledge. The book then seems most suitable at the upper-class level. The authors say they have tried all 37 articles on their classes with success. Every teacher will differ as to which ones he would be willing to use. I would use most of them. In any event, the authors have performed a real service in calling attention to some of the best articles to appear in the past 15 years and in making them more accessible.

DONALD L. KEMMERER

University of Illinois

Economic History of Great Britain. By W. STANFORD REID. (New York: Ronald Press. 1954. Pp. x, 557. $6.00.)

This is a new and probably the most useful text in a somewhat restricted field. It is longer and rather better organized than Dietz (1942), more complete but less felicitous than Lipson (1950). It is less mature than Birnie (1936), now a little out-of-date. For a thorough coverage of the period 1837-1940 it does not replace Jones and Pool (1940, revised 1948) and, of course, the graduate student will still use that monument of scholarship, Bowden, Karpovich and Usher (1937).

It is written by a Canadian scholar of Scottish origin who is still, I understand, an active clergyman. These two influences are clearly evident in the book. Attention is given throughout to Great Britain, not England alone, with the result that Scottish development emerges clearly and interestingly. Religious thought and social welfare measures are extensively treated and the moral causes of cyclical fluctuations (*e.g.*, "dishonest promotion," p. 292) receive unusual consideration. Curiously and unfortunately, the author misses the opportunity to investigate the Weber thesis on religion and the rise of capitalism, its application by Tawney and its criticism by Robertson, Nef and others.

In fact, the author often fails to point out areas where varying interpretations exist and to discuss well-known controversies among historians. Furthermore, he seldom indicates the major figures in the historiography of the field. That this can be done in a textbook is evident from the skillful way in which Herbert Heaton, in his *Economic History of Europe*, enlivens his narrative by weighing and evaluating the contributions of the great scholars. Students are interested in these things.

There is hardly any explicit concern in this book for the problem of economic growth. It lacks any conceptual apparatus or framework. The work of

Schumpeter is unmentioned. There is not much understanding of the contributions of Usher, who has studied the interaction of technology and resources and shown that rates of growth have been different at different times. Is it asking too much of a textbook to consider the larger issues of history? Perhaps; but certainly any economic history of Britain should include an explicit treatment of the rise of central banking. True, there is some good material on the Bank of England and the development of the banking system but it is an unsophisticated treatment. The words "central bank" do not appear in the book. One reads nothing of Horsley Palmer, Thornton, Tooke, nothing of Bagehot; nor is there reference to the work of Feavearyear, King, Viner, Hawtrey, Clapham or Angell. In view of the strategic importance of the modern central bank as an instrument of economic control, one could expect its development to be traced in some detail.

But the book has many points of strength. The chapters on agriculture and agrarian changes at different periods are excellent, as are the chapters on industrial organization, although I wish there were more emphasis on the "rationalization" of British industry in the period between world wars. There are interesting chapters on public finance and taxation. Although there is nothing on the long (Kondratieff) cycle, the shorter business cycles are adequately treated, and Rostow's contributions are recognized. Throughout the book, economic philosophy and its relation to public policy, from Mun to Keynes, is well handled, including a very interesting discussion of John Stuart Mill. The changing economic position of Britain after 1870, particularly as it was affected by two wars, is well presented. There is a judicious assessment of recent history in the last chapter. The book should be serviceable in college courses, its lacunae providing convenient opportunities for the instructor to supplement it.

JOSEPH T. LAMBIE

Boston, Massachusetts

Introduction to the Economic History of China. By E. STUART KIRBY. (London: George Allen & Unwin Ltd. New York: Macmillan. 1954. Pp. vii, 202. $4.25.)

China's principal claims to fame in the past have been in the realm of the political, the social, and the cultural, rather than in what might be termed Western-type progress. Western economic historians, particularly those writing in English, have until recently been transfixed by the careers of "successful" nations, and (with a few notable exceptions) have consequently neglected, among other nations, China. There are a few monographs in what might be called Chinese economic history in English, and there are works such as Max Weber's *Religions of China* (where the Protestant ethic hypothesis is applied inversely by Weber), but that is about all. Professor Kirby wishes urgently to see this gap filled. Despite the title of his book, he does not attempt directly to fill the gap himself. Rather, as Kirby states, his study attempts "to define . . . the nature and importance of the subject, and to furnish a general guide to its further exploration in the future" (p. 11). Kirby sees himself

"as one who leans against another's door, not yet venturing to enter the inner hall."

In other words, this book is designed for the would-be economic historian of China, not for the would-be reader of an economic history of China (in English). Kirby's meticulous and comprehensive spadework will doubtless hasten the completion of the latter, upon which he is currently at work himself. But most of this book is in effect an elaborately annotated bibliography (and most of the references are to Japanese and Chinese works). Accompanying these (800 or more) references are all too cursory outlines of some of the major historical developments and some of the bothersome (and interesting) questions concerning the economic development of China. Although entirely too cryptic, this narrative accompaniment gives the reader at least some idea of the nature of Chinese economic development. A map or two, as an accompaniment to this discussion of areas which are not well known to most of us, would have helped.

This is a valuable book, since it eases the way for much-needed studies by others, any comments below notwithstanding. But this reviewer found the dominant tone of the book to be discordant and disturbing. Kirby is preoccupied almost to the point of obsession with his dislike of the Chinese Communist Party and its associated Marxist scholars. There are few moments when the reader is allowed to forget this preoccupation which, indeed, would appear to provide the *raison d'être* of Kirby's book. Although the gap in Western scholarship concerning China is seen as serious in itself, and although a thorough study of the economic history of China has an inherent interest and importance of its own for Kirby, there are even more compelling reasons for such a study to get underway with dispatch and on a large scale. These reasons, for Kirby, have to do with the "definite danger, from the intellectual and political point of view" of the existing deficiency. "For China has fallen under a doctrinal regime, one of the basic tenets of which is the attribution of a special importance to economic history, the reduction of all history to its economic aspect, and the projection of the conclusions thus reached into the present and future, as determinants of current practice" (p. 12). For Kirby this is a threat, and "it is a duty, for the free Western peoples, to meet such a threat. One constructive means of doing so is the extension of all types of Sinological and Oriental studies. In this field, economic history claims a key position . . ." (p. 14).

Surely few would disagree with the notion that responsible scholars possessing the appropriate competence should have attempted before this, and should certainly now attempt, to understand the past and present life processes of all countries. But certainly the most fruitful and promising means to this end is for economic historians (and others) to work with positive, rather than combative, ends in view.

To be sure, we all do, perhaps should, enter into studies of social questions with our values, our problem emphases, and our associated methodology. But when we are invited to enter such studies in the *negative* terms emphasized by Kirby, this reviewer joins the 19th century British poet Clough,

who wrote in a not dissimilar context, "Somehow, Eustace, alas! I have not felt the vocation."

DOUGLAS F. DOWD

Cornell University

American Economic Policy Toward the Philippines. By SHIRLEY JENKINS. With an introduction by Claude A. Buss. (Stanford: Stanford University Press. 1954. Pp. viii, 181. $4.00.)

This book is primarily a study of the Philippine Trade Act (Bell Act) of 1946 and its impact on the postwar Philippine economy. Mrs. Jenkins' thesis is that the Bell Act meant the virtual reinstitution of the prewar economy whereas a vigorous program of economic development toward diversification and industrialization was required.

The basic problems of low incomes and inefficient production persisted over the period 1898-1941 because of an overspecialized economy heavily dependent on the United States as the chief market for the few export crops and the primary source of imports. United States economic policies, embodied in commercial and financial ties, were instrumental in developing and continuing this pattern. The Bell Act, in the postwar setting, was an extension of these policies and thus became only a new chapter in an old story.

With the continued tariff preferences for American products, absolute and duty-free quotas for Philippine exports, allocation of quotas in the Philippines primarily to old firms, and parity rights and the dollar-peso tie to safeguard American investment in the Philippines, the Trade Act circumscribed the possibilities of new economic development. Moreover, when rehabilitation grants were made dependent on the acceptance of the Act, the opportunity for an independent role by Filipinos was thwarted.

Although Mrs. Jenkins does not recommend specific revisions of the Trade Act, she underlines the importance of altering the Act in a criticism of the Bell Mission Report, which, in her opinion, did not properly relate the Bell Act to the implementation of project aid.

In bringing up to date the account of United States commercial policy the study is worth while and timely. Along with the introduction by Claude Buss, who evokes a long and deep understanding of Filipino psychology and politics, the summaries of postwar economic developments 1945-51 and digests of postwar plans and surveys—Joint Philippine American Finance Committee Report, Hibben Memorandum, Byster Report, Cuaderno Plan and the Bell Mission Report—should prove useful to the student of Philippine affairs.

Especially noteworthy is the orientation to the basic problems of low incomes, inefficient production, and overspecialization rather than dependence per se. In addition, Mrs. Jenkins is aware of serious internal problems and international events contributing to the failure to alter development. But certain questions can be raised concerning the sufficiency of the analysis of the interrelation of indigenous Filipino and foreign economic institutions with United States policies and in turn the basic problems of Philippine economy;

the nature of the changes in these institutions; and the resulting limitations and potentialities they present for new economic development. The references to the attitudes, characteristics and policies of Filipino groups, and the study of Philippine sentiment toward the Bell Act (Ch. 7) do not satisfactorily answer these questions. This would be only a criticism of scope were it not difficult, without such an analysis, to assess the actual impact of United States policies on the Philippine economy, and it is suggested that, on the basis of such an analysis, other aspects of United States economic policies toward the Philippines would then receive the attention needed. Moreover, answers to these questions might permit a more realistic evaluation of what commercial and financial policies are required to achieve a "vigorous program of economic development."

ROBERT K. ARNOLD

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The Pacific Islander and Modern Commerce. By V. D. STACE. (Noumea, New Caledonia: South Pacific Commission. 1954 .Pp. 29.)

The scattered islands of the South Pacific emerged from a haze of romance during the second world war. Not much has been done to help them cope with the stark economic problems they faced at the war's end. The numbers of their people are substantial. They now increase rather fast. The islands are scattered over vast distances so that communication is difficult. The South Pacific Commission, of which the United States is a member, was set up on the model of the Caribbean Commission to investigate possibilities of development. It has published a series of Technical Papers, of which this monetary survey is No. 54.

There is much to be learned from this study of the apparently simplest, yet really very complex, area in which economic development is now being studied—especially concerning the hindrances that are embodied in the folkways of primitive peoples. The islands have served in the past as a source of tropical labor (blackbirding). Some plantation development has been attempted. But until recently little has been done to equip the likeable people who inhabit them with some notion of how they can fend for themselves in a shrinking world. Mr. Stace tackles this problem by a survey of their access to credit, the possibilities of cooperation and the need for capital. Capital is still drained from the islands. Even the government funds designed to stabilize commodity prices are invested overseas. Alien immigrants such as the Indians in Fiji flourish. There is some risk that the Polynesians and Melanesians will receive too much social welfare and not enough education in self-help. Picturesque customs and archaic tribal organization do not help. Yet it is possible to break through, as the Bank of American Samoa, with its local staff under an American manager, has shown. There is much in this slim volume that warrants thoughtful reading, and Stace is to be congratulated on a difficult study well done.

J. B. CONDLIFFE

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Economic Systems; Planning and Reform; Cooperation

The Present as History. By PAUL M. SWEEZY. (New York: Monthly Review Press. 1953. Pp. viii, 376. $5.00.)

A collection of magazine articles and book reviews written during the last fifteen years—articles of quite unequal length, depth, and worth—would not normally be very exciting were it not for the author's personality and point of view. The author is a competent economist, and his point of view is such as to make the book something of a collector's item—academic Marxism. The title is misleading, since the book has nothing to do with historiography; it only conveys the author's conviction that "Marxism is the only genuine and comprehensive science of history and society" (p. 262). Part I entitled "The Character of Our Epoch" might have been expected to examine the main theme, but there is little to distinguish it from subsequent chapters on imperialism, American and German capitalism and discussion of economic theories, except a brief article on Toynbee.

The thesis is simple enough to be appreciated by any sophomore who has taken an introductory course in social science: capitalism is disintegrating and is only being kept alive by imperialism—its wages are war and poverty. But occasionally Sweezy's previous *expertise* looms above the barrens of Marxist dialetics and makes him complicate his argument, *e.g.*, in his discussion (The Communist Manifesto after 100 Years) of "why capitalism has been able to dig in deep in . . . Western Europe and America and to resist the rising tide of socialism much longer than Marx and Engels ever thought possible." Even though quoting William Z. Foster as an authority on "American exceptionalism," his views would scarcely command enthusiasm on the part of the more faithful adherents to Leninism-Stalinism.

Perhaps the most important contribution of the book is this demonstration of sterility, no less on the plane of politics than on that of economic theory. It is a reflection of the backwardness of American socialism, its utter failure to organize a viable political movement which has prevented it from facing the theoretical as well as the practical issues to which socialism has been subjected in Europe. In these countries socialism had to face the split between the orthodox and the revisionists first, and between social democrats and communists later. As a result it had to choose between reform and revolution, democracy and dictatorship, the West and the East. Some socialists chose one side, some the other, and in the process their thought as well as their action became defined and clear-cut. American socialists, and more pronouncedly the intellectuals around the *Monthly Review*, have never faced up to the problem; they are very sure of themselves when criticizing capitalism, but exceedingly fuzzy when it comes to debating not the socialism of Marx, but that of Stalin or Malenkov. This is well illustrated in the author's analysis (or rather lack of analysis) of Soviet imperialism. Strangely enough Sweezy criticizes Sternberg for failing to do so, yet has no suggestion to offer himself. Since he clings to the concept of imperialism as "the international socio-economic system which developed in the period of

competing monopoly capitalism" (p. 92), he cannot bring himself even to admitting the possibility of communist imperialism. Yet he might have found here a fruitful field for investigation of a new brand of exploitation: capitalist countries have frequently exploited their colonies by underindustrialization; the Soviet Union has developed a new technique of exploitation by overindustrialization, and specifically by starving consumers-goods production at the expense of a hypertrophic heavy industry ancillary to that of the Soviet Union, with the result of a rising national income accompanied by a lower standard of living.

The limitations of Marxism are even more apparent in his treatment of American capitalism. His division of American society into what he calls the ruling class and the working class is not only in glaring contradiction to the findings of sociology, but makes the author feel uncomfortable in terms of his own evidence and forces him to take refuge in a concept of fringes and borderlands. How can we reconcile his a priori statement that "social classes are real living social entities; not artificial creations of the social scientist" (p. 122) with his unrewarded search for evidence that social classes in this, the "purest capitalist society that ever existed" (p. 126) "are not identical with the economic classes of capitalist society" (p. 127)? Is it perhaps because Marxism fails to differentiate between the realities of Europe around 1910 and the realities of America in 1954? Or is it to be traced to the ontological and epistemological weaknesses we find at the very core of dialectical materialism?

The professional economist will be most interested in Part V (Thinkers and Theories) and particularly in his evaluation of Keynes. Here Sweezy's training clearly influences his Marxism, leading him to a recognition of Keynes' contributions and to the statement that "the Keynesians are as a group far better trained and equipped technically than Marxist economists and as matters stand now there is no doubt which group can learn more from the other" (p. 261). Even so he draws a sharp dividing line between the Keynesian to whom the crisis of capitalism appears as a crisis of intelligence, and the Marxist who considers it as inevitable and ultimately fatal.

In spite, or perhaps because, of the shortcomings of a Marxist approach, the reader will find many stimulating passages and observations. For instance, when he points out that there is no clear dividing line between the "economic" and the "political" elements in social life and that the two cannot be treated respectively in isolation, that the orthodox economist treats the government as a sort of devil and the Keynesian as a *deus ex machina* (p. 312). The new, groping efforts at a "behavioral" science, the multiplication of group research projects, the increasingly frequent crossing of interdisciplinary lines point in the same direction. They have not yet taken us very far. Still, a synthesis in terms of Marxism, once a manifestation of *avant-garde* thought, begins to exude a faint scent of anachronism.

Frank Munk

Reed College

The "Isms"—A History and Evaluation. B. EUGENE O. GOLOB. (New York: Harper & Bros. 1954. Pp. xii, 681. $6.00.)

One of the distinctive marks of this book, as compared with the usual textbook on Comparative Economic Systems, is the emphasis on neomercantilism and its historical connection with the original mercantilist view. In the opinion of Professor Golob, not only was the New Deal "neomercantilism democratized" (p. 127), but neomercantilism is essentially the system under which we live and which, when modified in the desirable degree by elements of "corporatism," holds out the best promise for the future.

It is certainly possible to define mercantilism in a manner that makes this use of the term logically admissible; that depends merely on the selection of the traits which we treat as essential to the mercantilist position. How much insight, however, do we gain, and what facts do we obscure, by focusing attention on the indubitable similarities between the interventionism of the absolute monarchy and that of the modern state? The present reviewer is not satisfied that the gain outweighs the loss. Modern interventionism, even in its nonsocialistic forms, is largely a response to the labor movement for which the history of the 16th, 17th and 18th centuries has no analogy. Therefore, the idea of putting the neomercantilist label on modern state activities as a whole—not only on the tariff policies of the recent past—belongs in the category of stimulating suggestions which in the end had better be discarded as more misleading than enlightening.

For an understanding of neomercantilism, the record of facts is more important than ideological discussions. For democratic socialism, the opposite is true, since a complete socialist system has never been in existence. Golob's approach, however, becomes more rather than less pragmatic as he progresses from his discussion of "neo-mercantilist" capitalism to the section on socialism. The emphasis here is on the experience of the British Labour Party in its last period of office. But can one really understand the aspirations of the socialists, or judge the chance of success of these aspirations, from British Labour experience between 1945 and 1952? Aside from the relative shortness of the period, aside also from some differences between British and Continental socialists which might make far-reaching generalizations from purely British experience hazardous, the policy of the Attlee government was too much of a struggle against the dollar shortage to be typical of the things a socialist government would want to do and might successfully accomplish. When the dust has settled, history will probably give Attlee and especially Sir Stafford Cripps high credit for laying the foundation for Britain's splendid recovery which became obvious in the following Churchill period, but this contribution has nothing to do with the attempted nationalization of steel and transport and only little with the nationalization of coal and with the planning experiments through the "Surveys." On the other hand, the frequent suggestions that Britain could not afford the kind of welfare state Labour was building—an opinion which Golob seems to share (see p. 316)—may have sounded convincing in 1949, but we know today that the cost of welfare policy has not prevented Britain from again becoming a going concern.

In the chapter on Soviet Communism Golob follows, on the whole, the road opened by other authors—and it would have been hard to do anything else. In his discussion of "Corporatism," Golob does not confine himself to an analysis of the Fascist models but also tries to investigate the role of vocational organization in the public life of democratic countries. Highly commendable as this endeavor is, he apparently had neither the time nor the space for its satisfactory execution. Too much relevant material has been left out, from the German (and other) examples of social insurance administration by workers' and employers' representatives to the Matignon agreement under Léon Blum. The last part, containing the author's own "Middle Way" program, is guided by a healthy mistrust of social perfectionism and all kinds of extreme solutions. Yet with all his efforts to keep in the middle of the road, Golob sometimes slips to one side: he takes too much of the Hayek type of antisocialist argument for granted, he is somewhat too sure that the economic inefficiency of the Soviet regime matches its inhumanity, and his aversion against the use of tax policy for the redistribution of income prevents him from realizing the enormous significance of the steeply progressive income tax for the social structure in the United States.

This, therefore, is a book with many weaknesses. At the same time, it is a very useful book with which to stimulate class discussion or student research on the graduate level. The book is full not only of provocative suggestions but also of intelligent comments and happy formulations. Among the last is the excellent phrase "quicksand fallacy" (p. 623) for the assumption that one step must always lead to another in the same direction, whereas in fact, as Golob points out, "one is rarely compelled to proceed to the logical conclusion of any process and . . ., in the affairs of society, men hardly ever do."

CARL LANDAUER

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Contemporary Social Reform Movements. Edited by JOHN ERIC NORDSKOG. (New York: Charles Scribner's Sons. 1954. Pp. x, 550. $6.00.)

This book, the outgrowth of Professor Nordskog's course, Social Reform Movements, is designed as a text for the study of present day ideologies of social reform and revolution. The materials which make up the chapters are drawn from previously published essays and chapters of books by other authors. The chapters are arranged sectionally around the following themes: (1) the essential definitions of reform and revolution; (2) the opposition between liberalism and collectivism; (3) the ideals, values, and dilemmas of democracy; (4) the utopias of socialism and communism; (5) the character and implementation of the Soviet ideology; (6) the concept of the fascist state; (7) tendencies in American capitalism and organized labor; (8) the development of "progressivism" and New Deal policies; and (9) nationalism as an ideology and social movement. Each section is accompanied by a critical and historical summary by the editor. An extensive bibliography and footnotes containing references to other works and comments by the editor have been provided.

The selections have been so arranged as to present a sort of running dialectic in which various social reform movements are weighed with respect to their bearing upon freedom and democracy, on the one hand, and authoritarianism and regimentation, on the other. In the dialectic the editor's philosophy which associates liberalist values with the enterprise economic system is unmistakable. Commenting on the alternatives in liberalist and collectivist movements, he states that "there is nothing in the collectivist principle which marks any stopping place short of the totalitarian state." Collectivism is defined to include "all movements and systems aiming at the collective as opposed to the individual direction of the economy." Under this definition two forms of collectivism are distinguished. One represents a movement toward central planning or control and direction of the economy by the state. This form is held to embrace not only socialism, communism, corporativism, fascism and national socialism but also programs and policies of government interference in economic life sponsored by the New Deal and the Fair Deal. The other form comprises voluntary concerted action by individuals for mutual welfare and advantage. This form is held to be consistent with the value of liberalism whereas the other is said to be opposed to it. If I have correctly interpreted the author's point of view he might well have included among the selections on liberalism one of Frank H. Knight's numerous writings on the subject, for example, his "Freedom as Fact and Criterion," or, perhaps, Henry Simon's essay "For a Free-Market Liberalism."

On the whole, the materials have been carefully and discriminatingly selected. The reproduction of Binkley's article on "Mill's Liberty Today" and de Tocqueville's *Democracy in America* is timely. In these contributions we are reminded of the dangers to which freedom is exposed under popular government: (1) that in periods of change and great danger democracy tends to become violent and cruel; (2) that liberty is not realized automatically by the introduction of parliamentary government or popular rule but might be threatened thereby; and (3) that the depositories of power who represent the people are quite as ready, when they can count on popular support, as any organs of oligarchy to assume repressive or arbitrary power, and to encroach unduly upon personal and civil liberties. The selections on the New Deal, which include Paul T. Homan's excellent but perhaps forgotten essay, is a well-balanced statement of the pros and cons. Somewhat less satisfactory, in my opinion, is the section on "Trends of Capital and Labor in America." This includes the following contributions: Peter Drucker, Avery Leiserson and Edwin E. Witte on the progress of labor as a bargaining power and pressure group; by Slichter on the business man's declining power in a "laborist" economy; John F. Bell on monopoly; and Robert S. Lynd on business as a system of power. All the contributions deal in some manner with the problem of economic power in connection with democratic ideals and practice. Whether considered from the side of business men or of the organized employees, the question of economic power is largely one of how competitive the economic system is. The two selections in which a discussion of the extent of competition would have been most appropriate are those

from Bell and Lynd. Neither can be said to contribute to the resolution of the question. The Bell article which is concerned mainly with the merger movement in industry and antitrust law enforcement seems to support the idea of an irresistible trend to monopoly, although it concedes that competition is not as yet dead. In the selection from Lynd the central thesis is that "capitalist economic power constitutes a direct, continuous, and fundamental threat to the whole structure of democratic authority everywhere and always." But what is held to be true of "capitalist" power is, in my opinion, equally true of power that originates in the political state or with organized labor.

The final section dealing with the upsurge of nationalism throughout the world contains able discussions by Hans Kohn, John Fairbanks and David Mitrany among others on the relationship between nationalism and popular sovereignty; the impossibility and undesirability of a multitude of small uninational states; the rise of Asian nationalism and communism; the affinity between nationalism, imperialism, and militarism; the internationalist "aspirations" and nationalistic practice of socialist and labor parties; and the conflict between national planning and international free trade. Except, perhaps, for Mitrany's article on "International Consequences of National Planning" the selections are concerned with nationalism mainly as a political and social psychological phenomenon. The economic aspects—exchange controls, bulk-buying, quota systems and protective tariffs—are dealt with only incidentally.

The force of the reviewer's adverse comments on the book is considerably weakened when its purpose is recalled. The purpose is the analysis not of economic principles but of the underlying philosophy of social reform and revolutionary movements. It fulfills this purpose admirably.

Abram L. Harris

University of Chicago

National Income and Social Accounting

Studies in Income and Wealth. Volume 15. (New York: National Bureau of Economic Research. 1952. Pp. x, 230. $3.50.)

This volume of the National Bureau's series on income and wealth contains papers presented at the June 1950 meeting of the Conference on Research, Income and Wealth. The major papers were prepared by Milton Friedman, George Garvy, D. Gale Johnson, Jeannette A. Fisher, Dorothy Brady, Margaret Reid, Mollie Orshansky, and Simon Kuznets and deal with problems of analyzing and interpreting income, expenditures and standard of living data. Their subject matter covers: interfamily comparisons as to income equality; relationships between incomes and geographic location, community size, color, and occupation; relationships of age to income, expenditures and saving; relationships of family savings to changes of the level and distribution of income; relationships of income and savings of farm families to farm and city living standards; and finally an exploration of directions for further inquiry.

Friedman's method for comparing incomes of families of different compositions was exhumed from some of his earlier work at the insistence of other people and he is skeptical about its usefulness. Thus, it is not surprising that when Due attempts to establish the usefulness of the method in an application, the results are inconclusive.

Garvy's discussion of income equality is more normative than the other contributions. After discussing perfect equality as the frame of reference behind the Lorenz curve and Gini's concentration ratio as an indicator of equality, Garvy considers natural and normative income distributions. He points to the need for more analytical work on the determining factors of income distribution, such as: (1) the basic economic and social determinants, (2) cyclical influences, (3) public policy, (4) demographic factors, (5) social-geographic factors and (6) the time unit under consideration. The continuity of the book despite its many authors is furthered by the fact that subsequent contributions tend to deal with just such determining factors.

Johnson, for instance, is puzzled by the apparent equivalence between southern nonfarm white family incomes and northern nonfarm white family incomes (after allowances are made for community size), despite lower salaries and wages, occupation by occupation, in the south than in the north. He rejects differences in family composition, differences in distribution among occupations, and differences in nonwage incomes as explanations. The data which he presents for rejecting differences in occupation distributions do not appear to be complete enough for this purpose in view of this reviewer's acquaintanceship with part of the midsouth. However, Johnson has probably checked the data in far more detail than indicated in his article. The ratio of per capita income payments, 1935 and 1946, did not necessarily contradict the equivalence between southern and northern nonfarm white family incomes. Johnson concludes that the data tend to confirm the hypothesis that the two incomes were equivalent at least by 1946.

Jeannette Fisher continues with the analysis of income distributions by investigating the impact of age on income, savings and spending. Such information is, of course, important in analyzing the influence of changing age distributions on income and over-all propensities to save.

Dorothy Brady investigates the "normal form" of the relationships between income and expenditures. In this investigation, the four operating propositions used are that: (1) intercommunity differences in average income changes exist, (2) *in a given income bracket*, expenditures or costs are positively correlated and savings negatively correlated with the general level of community income, (3) expenditure patterns are below and savings patterns are above normal (for the current income level) in communities experiencing substantial increases in income and (4) conversely, expenditure patterns are above and saving patterns are below normal (for the current income level) for communities experiencing substantial decreases in income. Propositions 1 and 2 tend to be verified by Mrs. Brady's work. Propositions 3 and 4 proved unverifiable from the data presented.

In her article, Margaret Reid investigates the relationships between ex-

penditures and income for farm as compared to nonfarm families. Two national surveys, the Consumer Purchasing Study of 1935-36 and the Spending and Saving in Wartimes Study of 1941, indicate that the expenditures of farm families are less elastic in relation to income than those of nonfarm families. The question is whether or not these indications are real or are the result of accounting and research methodology. In connection with this question, four topics are discussed: (1) possible effects of income concept and problems of measurement on the observed relationship between farm family expenditures and income, (2) the measures of income used in studies of farm family expenditures and experience of investigators, (3) the possible influence of patterns of farm expenses on net income classes, and (4) various methods of classification which may be used in analyzing the expenditures of groups of families whose incomes vary considerably from year to year.

In the last main paper, Mollie Orshansky studies equivalent levels of living in farm and city. Her basic idea is that the point of inflection on a curve relating expenditures to income will be the point at which the quantity needs of a family are satiated and the point at which they start making improvements in quality and shifts between consumption items as a matter of taste rather than of necessity. She concludes that the incomes which would yield these points of inflection for two groups of people such as farm and nonfarm people would be comparable. The idea is that an income which would not take one family to its inflection point would be inferior to an income which would take another family to its inflection point. Her report takes up several aspects and implications of the method, its application to the determination of a clothing budget for a farm family and possible extensions to the determination of the food budget as a first step toward developing a way of comparing farm and city-family food budgets.

In closing the volume, Kuznets stresses the importance of data on the size distribution of income. In this connection, he urges inquiry along four lines: historical changes and area differences; causal factors in the size distribution of income; factors in the relation between size and use of income; and normative valuations.

Glenn L. Johnson

Michigan State College

Business Fluctuations; Prices

Determining the Business Outlook. Edited by Herbert V. Prochnow. (New York: Harper and Brothers. 1954. Pp. xiv, 445. $6.50.)

The purpose of this book is to analyze principal business indicators and selected segments of the economy as an aid to those concerned with evaluating the business outlook. Twenty-one authors present essays on individual assignments. Obviously, it is impossible to describe each of these essays in a short review. The first third of the book considers general processes, the next third relates to broad industry groups and the last third returns to more general topics.

In the first third the importance of forecasting, the nature of business cycles, the problem of money supply, stock prices and interest rates, propensity to consume, and gross national product are discussed. In the last of these chapters, Paul McCracken presents a highly lucid, but elementary, explanation of GNP.

The second third covers durable goods, nondurable goods, petroleum, coal, construction, public utilities, automobiles, personal consumption expenditure, and agriculture. Attention may be called to the forecasting procedures that Albert J. McIntosh has applied in the petroleum industry and to the description George P. Hitchings gives of the use of data in forecasting sales of automobiles.

The final third considers prices, wages and employment, the government budget, changes in business population and inventories, foreign trade, and long-time trends. Particularly informative are Arthur B. Hersey's essay on methods of analysis in studying world markets and foreign trade and Wesley Lindow's description of government processes of spending, taxing and lending. The thoughtful chapter on long-time trends by Frank R. Garfield does much to redress the failure of the book otherwise to face the problem of forecasting growth. Notwithstanding, the book must be considered essentially a study of short-term forecasting.

Many valuable observations are made, and these are by no means limited to the chapters specially noted above. Any forecaster will find the book profitable because of observations which may make him reconsider procedures he employs or may, in some cases, extend the procedures available to him. Some of the essays will provide useful descriptions for many persons with little interest in forecasting.

The book, however, does not fit neatly into any particular niche in forecasting literature. (1) Some of the essays are principally descriptions of statistical methods of computation, (2) some are highly competent analytical descriptions of data in the area presented but may not be pointed particularly to forecasting, (3) some are directed principally to the extent the series considered are "lead" series, while (4) a few of the essays center attention on the problem of forecasting procedures. All of this is necessary for the forecaster, but of unequal value to any given reader. For instance, those who are prepared to take a mature look at forecasting procedures are likely to be already familiar with the statistical methods described. The unsatisfactory state of lead series is an old story to those acquainted with the field, while the emphasis given them is likely to bring others to exaggerate their importance.

From the point of view of the forecasting job, the chief weakness of the book lies in its failure to face squarely the forecasting of aggregate activity. Repeatedly, it is shown that given industries and processes are chiefly dependent upon aggregate activity, so that a careful consideration of the methods of forecasting it would have been particularly appropriate. The reader will look in vain for GNP model forecasting or for the National Bureau "unseen cycle" (the proportion of indicators expanding) method.

Nevertheless, it would be ungrateful to end this review on a note of criticism. The gaps are so great in the forecasting literature and the useful

observations in the book are so numerous that it will be a valuable reference for some time to come.

ELMER C. BRATT

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Money and Banking; Short-Term Credit; Consumer Finance

The Dollar. Sir George Watson Lectures, 1953. By ROY HARROD. (New York: Harcourt Brace and Co. 1954. Pp. vi, 156. $3.50.)

The Watson lectures are on "American history, literature and institutions," and Mr. Harrod, in explaining the holding of the lectureship by an economist, refers to the dollar as "an institution with a complex history, deeply interwoven with the whole story of the great American adventure." The titles suggest the wide field that the lectures cover: Evolution of the Dollar; The Federal Reserve System; Towards International Co-operation; The Dollar Gap; and they tell their story in a stimulating and graceful style.

On two points, Harrod takes forceful issue with postwar British policy: the use of so much current production in 1946-48 for capital construction instead of exports, and the devaluation of 1949, which in his judgment "was one of the greatest follies in the whole troubled course of monetary history" (p.125). In his discussion of American economic history, Harrod lacks the sure touch that marks his writings in other fields, and in a number of places he slips on the facts or gives a misleading phrasing. For example, he attributes the supplies of Spanish milled dollars in the colonies to "trade across the frontier of Louisiana" (p. 9); his interpretation of the reasons for the change to the 16:1 ratio in 1834 is inadequate and apparently written without benefit of the views in Paul O'Leary's article of 1937 on "The Coinage Legislation of 1834"; his statement that the view that "discrimination is an expression of imperialism, which is an unmitigated evil" was "age-old State Department doctrine" (p. 99) does not square with many episodes in the history of American commercial policy.

More serious is the picture of the United States balance of payments between the 1870's and 1914 (pp. 33, 135). Harrod interprets the excess of commodity exports as offset "partly by the redemption of investments previously made in the United States by foreigners," whereas the fact was that the net debtor position of the United States increased substantially between 1873 and 1914. On the basis of such a picture he gives the judgment:

> It is often supposed that it [the dollar gap] is a new phenomenon due to developments since the Second World War . . . it is to be noted that the big change occurred three-quarters of a century ago, and that ever since the United States has had a substantial surplus on visible trade account. What is new in the present situation is not this surplus, but the disappearance of the ways in which it has heretofore been met. Recognition of this should affect our thinking about the current dollar problem. If the trading deficit of the rest of the world with the United States was mainly due to overspending on post-war reconstruction, or to undisci-

> plined inflations, the correctives required would be fairly clearly marked out for us. To alter a pattern that has existed for three-quarters of a century is not so easy (p. 34).

In the discussion in the last lecture of the European balance-of-payments position in relation to the United States, Harrod stresses the need to expand multilateral trade. However, the action that he appears to favor above all others as a solution of the "world-wide disequilibrium of payments" is "a restoration of the value of gold." "It [the dollar gap] would be largely solved if the United States became willing once more to accept gold at a dollar price comparable with other post-war prices" (p. 152). His conclusion in regard to gold is: "Its dollar price should be doubled" (p. 154). Many economists will be unable to accept the analysis by which Harrod arrives at this conclusion, particularly in view of the statement in the first lecture: "The refusal of Queen Elizabeth I to countenance debasement constitutes the main watershed, not only in the history of British currency, but also, by precedent, in the history of the currency of Christendom since the Dark Ages" (p. 3).

Frank Whitson Fetter

Northwestern University

Business Finance; Investments and Security Markets; Insurance

Managing Securities: The Basic Principles of Investment. By Sidney M. Robbins. (Boston: Houghton Mifflin Company. Pp. x, 598. $6.00.)

This textbook is intended for use in a basic college course in Investments. The five sections of the book deal with security markets and market practice, investment programming, sources of investment information, security analysis, and market analysis and formula planning. The section on security analysis receives the fullest development and covers some 348 pages. Investment programming receives a hurried and superficial treatment which is allotted some 25 pages. Thus, the text concerns itself mainly with the details of security analysis and an institutional description of the securities markets and their mechanisms. Little attempt is made to present a well-rounded and systematic appraisal of the various economic risks borne by the individual and the institutional investor, nor is there any significant development of the impact of these risks on the investment problems and policies of the various classes of investors.

If the user of this book believes that a college investments course should be designed to afford some *rapprochement* with economic theory rather than to provide information for the solution of private investment problems he will take issue with Professor Robbins' treatment of investment programming. In the discussion of the individual investor, several individuals and their circumstances are presented along with suggested portfolios as a solution to their problems. The treatment of the investment problems and policies of eight major classes of institutional investors, which includes among others, commercial banks, life insurance companies, fire and casualty insurance

companies, in some ten pages seems to this reader to be undue compression. If, as the title of the book suggests, it is a discussion of investment principles, the section on programming should have been strengthened by using as a framework the risk-bearing function of the investor, such as the approach used by Dowrie and Fuller.

The section on security analysis is the strongest part of the book. The author's experience in this field is used to good advantage and the section is well written. Great emphasis is placed on the undervalued security approach developed by Graham and Dodd, as Robbins acknowledges. The usual topics are covered: notably, the analytical techniques applied to various types of governmental and private bonds as well as preferred and common-stock issues. Separate chapters are devoted to the securities of industrials, utilities, railroads, banks, insurance companies and investment companies. The section on bond analysis is prefaced by a brief discussion of interest-rate theory which merits a more sophisticated examination. The treatment of interest-rate structure and the examples given (p. 149) should have recognized obligations below first quality. An explanation of the dynamics of interest-rate movements should consider the changes in spreads on obtainable yields. This section of the book concludes with a discussion of taxation that more properly belongs in the section on investment programming.

The two chapters treating "basic information" cover sources of investment information and the factors affecting security prices. The chapter on sources is hardly more than a listing of various publications with little attempt at critical appraisal. The chapter on factors affecting security prices confines itself to issues below high-grade and distinguishes five major factors to account for changes in the prices of these securities; namely: (1) eventual market recognition of intrinsically undervalued issues; (2) psychological factors; (3) the business outlook; (4) growth; and (5) special situations. A fuller development of this material seems in order. For example, even if the author had little faith in attempts to measure the influence of financial sentiment on security prices, the techniques commonly used might have been presented and evaluated. In discussing the influence of business conditions on security prices, a chart (Figure 5, p. 132) is presented which shows a comparison of movements of stock prices and industrial production. This reader cannot agree after examining this chart that "The conformity between the respective curves of business activity and stock prices is striking" (p. 131).

Market analysis and formula planning are given brief but adequate treatment, considering the scope of the single-semester college course. Two appendices are included. The first consists of review questions and problems. The second is a comprehensive bibliography which is unusually complete and well-arranged.

The author has made an effort to keep the text up-to-date by including comment on several topical matters, such as the outlook for treasury bonds, and recent tax developments. Instructors who use the book will find it necessary to supplement this presentation.

The book will be useful to those who desire to stress security analysis. On

this topic the exposition is excellent and should be readily grasped by the student who has had relatively little previous accounting and financial training.

FREDERICK C. JOERG

Duke University

Public Finance

Federal-State-Local Tax Correlation—a Symposium. (Princeton: Tax Institute. 1954. Pp. viii, 256. $5.00.)

Appointment of a Commission on Intergovernmental Relations by President Eisenhower stimulated the Tax Institute to take as the topic for its 1953 symposium, "Federal-State-Local Tax Correlation." Twenty-three participants presented brief papers on background considerations, federal and state aid, conflicts of jurisdiction, and potentialities of cooperation.

The papers, with few exceptions, give a competent description or analysis of the issues. But within the narrow limits of space set for each topic, it was impossible to dig deeply or to show originality. At the risk of being invidious, the reviewer commends the annotated bibliographies by L. L. Ecker-Racz and Selma J. Mushkin which review the significant developments of the last decade; the compact discussion by J. H. Perry of intergovernmental fiscal relations in Canada, especially the remarkable happenings of the last dozen years; and the neat survey of the present status of tax conflicts by Mortimer M. Kassell. The over-all conclusion is that in the United States no progress has been made—perhaps that we have not even held our own, and that no easy remedies lie at hand. Kassell, for example, states: "All in all, aside from death taxation, it must be admitted that interstate conflicts in almost every area of state taxation are not decreasing in quantity or quality" (p. 149). One can, however, detect bright spots: federal and state individual income tax provisions have become more uniform; increased cooperation with respect to inspection, withholding, deductibility, is evident. P. J. Strayer is hopeful about the *future* of tax supplements, although the grounds for this optimism are unconvincing. It may, besides, be consoling to reflect that the conflicts have been less damaging than some prophets predicted. This is, however, mainly because these effects are hidden, and one can view with more alarm than do most of the participants the economic damage being done through the multiplication of local sales and income taxes.

Some participants refer hopefully or wistfully to the Commission on Intergovernmental Relations, and perhaps it will come up with the right answers. Even so, this will be insufficient to secure reform because the right answers for the nation may be the wrong answers for certain powerful groups. It is, for example, not difficult to provide a formula to secure uniformity in allocation of corporate income and capital among the states for purposes of taxation. It is difficult to secure its adoption, and even more difficult to secure uniformity in interpretation. The recommendations of the Commission, even

if right, must be put with enough cogency and dramatic force to capture the national imagination and gather national support.

JAMES A. MAXWELL

Clark University

Government Finance, by JOHN F. DUE. (Homewood: Richard D. Irwin. 1954. Pp. xviii, 562. $6.00.)

Postwar treatises on public finance have followed two lines: one seeks to integrate the field with economics and the other treats its subject as an "independent discipline." This book is one of the better contributions in the former class. Between many pages of closely packed analysis the author finds space for a substantial amount of descriptive and "institutional" material; he has the advantage of thorough familiarity with both the Canadian and American experiences, and he uses it effectively to submit a comparative study of the two.

In addition to the usual coverage of public finance in the conventional order, the author offers chapters on the governmental component in national income and on net worth taxation. The latter is particularly effective, arguing persuasively that a wealth tax with a low rate and some exemptions would be a highly desirable supplement to our income tax. A chapter on fees and commercial revenues is much the best summary treatment of this area that the reviewer has seen.

After presenting pros and cons, the author typically evaluates. To take a few examples, he is favorably disposed toward parity-treatment of capital gains, income-splitting, averaging, integration of personal and corporate income tax (dividend-paid credit preferred), the Treasury's side of postwar debt management, and fiscal as against monetary controls.

To select a few "bones of contention" from a large array of arguments and conclusions, we note that the author dismisses all matters of equity and distribution with the observation that these are value judgments finally and indisputably determined by what people want. The reviewer heartily dissents; in his (perhaps minority) opinion problems of distribution turn on its economic, political and social consequences. They are amenable to evidence, deductive and empirical, and they are not unique because they lead to answers upon which reasonable men may differ.

Due is persuaded that almost any departure from market preferences of individuals induced by excise taxes is likely to involve an aberration from optimal allocation of resources. (An exception is conceded where social costs are an important addition to private costs.) Actually there is little ground for the view that a private market fashioned to suit purchasing power provides any acceptable standard of optimum allocation of resources from which to depart in the first place.

In his treatment of the incidence of a general commodity tax, the author virtually ignores the segment falling on capital goods. By incidental reference and without analysis, he assumes that this portion of a general tax is shifted forward ultimately to consumers. (No mention whatever is made of a value-

added tax with its unique possibility of taxing *all* spending uniformly.) Thus he does not squarely face up to the problem of a uniform universal tax with no escape by migration of resources. Nor does he consider the possibility that a general rise in the price level (including capital goods) might affect real income like a proportional income tax. It seems that the wave of the future in incidence theory must distinguish sharply between the absolute and relative effects of taxes on prices. The author defines incidence as the effect of a tax on the distribution of real income. Yet he does not see that taxes plus expenditures (which he wishes to lump with taxes in the analysis) may result in no aggregate burden whatever and conceivably no redistribution either. They simply result in a substitution of public for private goods.

In the reviewer's opinion, the author considerably underrates the importance of monetary policy (and the rationing of credit in various ways) as a tool for coping with inflation. Taxes would be quite as inflationary as borrowing from banks if all taxpayers could and would borrow the wherewithal with which to pay their taxes.

A few minor errors of fact may be worth attention. The government does not *exempt* capital gains when residences are (in effect) simultaneously bought and sold; it only *postpones* realization. The British no longer confine their income tax generally to recurrent gains. Contrary to the impression left on the reader, most patronage dividends of cooperatives *are* taxable to the recipient in his personal account with the revenue.

One could quarrel also with matters of space allocation. It seems, for instance, that in the treatment of intergovernmental relations, the complicated and important problem of tax deductibility should command more attention than the eight lines devoted to it.

In general, however, this is a comprehensive, careful and competent product that should prove a useful tool both in the academic world and among reasonably sophisticated laymen.

Harold M. Groves

University of Wisconsin

International Economics

Staff Papers Presented to the Commission on Foreign Economic Policy, February 1954. (Washington: Supt. Docs. 1954. Pp. xv, 531.)

The Randall Commission did its work in a few months. Its staff of sixteen senior economists[1]—some of them part-time—had no time to undertake major pieces of research or to work out wholly new analyses of the problems of United States foreign economic policy. The members of the staff were chosen because they already knew their subjects thoroughly, had analyses at their fingertips, and were familiar with the ways in which issues present

[1] Alfred C. Neal, director of research; Joseph S. Davis, economic adviser; William L. Batt, Jr.; Ernest T. Baughman; Jack F. Bennett; Arthur I. Bloomfield; William Adams Brown, Jr.; Emilio G. Collado; Elmer F. Cope; Oscar B. Jesness; David W. MacEachron; James A. McCullough; Raymond F. Mikesell; Howard S. Piquet; Donald Sham; Raymond Vernon.

themselves to policy-makers as well as in textbooks. Their job was to present these issues to the Commissioners, along with the facts and arguments that would enable them to come to some decision on the many issues before them. The Commissioners' backgrounds varied greatly, and, while some had great knowledge of particular aspects of American foreign economic policy, few except John Williams could be presumed to be familiar with the whole field or with the lingo economists often use in talking about these matters. Hence the staff's papers had to avoid jargon, explain matters clearly and explicitly, and still go deep enough to touch the real issues.

The published result of this work makes a substantial volume that is the most comprehensive and useful single book on current problems of United States foreign economic policy. Though prepared for a specific occasion, the book will not quickly lose its usefulness. A few papers deal with immediate issues that will disappear with time and some detailed sections will lose their point as their facts and figures go out of date. But most of the papers deal with issues that will be with us for some time to come and treat them in a fashion that will still be relevant after the passage of several years even though particular circumstances may have changed.

This is not to say that the *Staff Papers* provide definitive, incontestable analyses or that they uncover large new areas of information. There is new information in some of the papers, most of it illustrative, and there are a few interesting pieces of original analysis. For the most part, though, what one should look for here is a series of highly competent discussions of major issues supported by authoritative distillations of basic facts. Not all of the facts are so highly distilled; the taxation of foreign investment and problems of customs administration, classification and valuation are dealt with in considerable detail, reflecting the work that has been done on these subjects in the government in recent years. A number of the papers present in convenient, reliable form information that people outside the government previously had to piece together from a variety of sources. This is one of the most useful features of a publication of this sort.

The papers are arranged in the same order as the topics in the Commission's report. By far the largest section deals with tariffs and trade policy. It contains a considerable amount of history along with a rationale of such elements of recent policy as the most-favored-nation clause, reciprocity, peril points and escape clauses as well as analytical examinations of the level of U.S. tariffs, federal Buy American policies, sanitary regulations, and other protective measures. A set of papers on "Adjustment to Increased Imports" provides the book's chief departure from familiar ground. After estimating the number of workers who might be affected by increased imports in the event of tariff suspension, these papers outline various ways of replacing jobs lost in this manner or of tiding workers over a period of adjustment. Brief studies of the watch industry in Elgin, the leather glove makers of Gloversville, and the briar pipe industry of New York illustrate the problems industries have in adjusting to increased imports, while community efforts at adjustment in sixteen areas are sketched briefly. The emphasis in these

papers is the same as that in David McDonald's statement (with which the other Commissioners did not agree): that a governmental program should not aim at compensating people hurt by tariff reductions, but at assisting communities and workers to adjust to changes comparable to those stemming from other sources than foreign competition. Much remains to be done before the problems in this field are fully explored, but these papers add significantly to the small literature of a subject that has been much talked about but only rarely written about.

After trade, the longer sections deal with agriculture and raw materials (including an interesting report on wool), and with private foreign investment. The dollar problem, foreign aid, and convertibility are the subjects of substantial sections. The background paper on foreign aid has interesting summaries of the assumptions on which American action was based at each major turn of the aid policy, in 1945, 1947 and 1950. Papers on offshore procurement set out some details of this practice more fully than any previous, generally available source. Shipping and east-west trade are dealt with briefly in papers that are a bit thin compared to the rest of the volume. Labor, tourism, and technical assistance are also subjects of separate papers.

Comprehensive as the collection of papers is, there are some gaps. A review of the recent evolution of U. S. policy toward international control of restrictive business practices might have been very interesting. Although technical assistance and the role of public loans are discussed, little is said about the nature of the American interest in the economic advancement of underdeveloped countries. Except for a discussion of the relation of the European Payments Union to convertibility, the papers do not deal with American policy toward Western European economic integration, a subject that might bear some re-examination in present circumstances. Although it was perfectly reasonable for the hard-pressed staff to decide not to study the problems of particular countries or areas, the reader would welcome some comment on the issues for American policy likely to arise from Japan's economic difficulties.

Even with these omissions the book is a major addition to the literature. It should have many uses. There is no better way for those unfamiliar with the field to get well into the problems of American foreign economic policy than by reading it. The more expert can also read it with benefit and may enjoy the game of matching authors with the anonymous papers. The book has considerable value as a reference, enhanced by an index. One suspects that during the next year or so a lot of lectures will stem from it. Some professors are using it in seminars and courses. Professionally, it is a good job.

The value of these papers leads me to hope that more means will be found to publish comparable works done under public auspices. We have something of this in the International Monetary Fund's *Staff Papers* and in publications of the Federal Reserve System; some papers find their way into this and other learned journals; the Paley Committee published some of its staff's work. But there should be more outlets to spread the benefits of the good work that competent economists, backed by the government's resources, can

do. There are disadvantages to this kind of work, and rather firm limits on the kind of contribution it can make, but this book shows that publication often would be a useful service to the profession and the public, and thereby in the end perhaps to the government as well.

WILLIAM DIEBOLD, JR.

Council on Foreign Relations
New York

Foreign Exchange in the Postwar World. By RAYMOND F. MIKESELL. (New York: Twentieth Century Fund. 1954. Pp. xv, 658. $5.00.)

Before World War I, the international movement of both people and goods was almost as simple as their movement within a single country. The gold standard ruled supreme, operating invisibly and automatically to keep a nation's international accounts in balance. For all but a few brief years since 1914, however, official regulation has replaced the automatism of the gold standard. International transactions have been so burdened with restrictions as to turn simplicity into fantastic complexity. This complex of controls and payments arrangements, as it has come to be since the second world war, Professor Mikesell describes, analyzes and evaluates in this book.

Much the larger part of the work is descriptive, with incidental accompanying analysis. Mikesell proceeds by stages from the general to the particular. In Part I, he traces the emergence from earlier arrangements and from the disruption of postwar conditions of a discernible pattern of trade and payments. Dominant in this pattern were three groups following widely different practices: the relatively free dollar area; the sterling area and countries using its facilities; and the rest of the world, basing its trade and payments on bilateral arrangements.

Part II goes into more detail, focussing upon particular types of international-payments arrangements and policies. These include exchange controls, various kinds of bilateral agreements, multiple exchange rate practices, exchange rate policies, the special case of the European Payments Union, and those evasions of controls covered by the euphemistic term "unofficial transactions."

Description continues in Part III, this time from the geographical point of view. All the major regions of the world are included in this study of their trade and exchange practices. As an aid to understanding these practices, emphasis is placed on the international financial problems the countries have confronted.

One comes away from these descriptive sections with a clear appreciation of the complexity of recent and current methods of handling the movement of goods, people, and capital. Out of the welter of detail there emerge distinct systems of international payments subject to varying degrees of restraint, the intensity of the latter depending upon the difficulty a country has in settling its international accounts. This difficulty, in turn, may be due primarily to external factors, such as shifts in the channels of trade, or to internal ones, such as rapid economic development or inflation plain and

simple. Mikesell has probably brought as much order out of chaos as is possible in such an exhaustive study. Owing to the organization of the book, however, there is a good deal of (largely unavoidable) repetition.

It is in Part IV that Mikesell undertakes to account for and appraise the restrictions which constrain the free world's trade. The principal cause he finds in the vast postwar changes in the structure of the world economy. The remedy lies in suitable structural adjustments: increased production of foodstuffs in underdeveloped areas to reduce excessive dependence on dollar supplies, larger output of capital goods in western Europe to replace U. S. exports of these products to the underdeveloped countries, and more effective competition of foreign producers of finished manufactures and manufactured foodstuffs in the U. S. market. But such adjustments require mobility of the factors, to be induced by deflationary monetary and fiscal measures; exchange rate adjustments to bring internal and external prices into line; larger international reserves, to remove the need for trade restrictions while adjustment is occurring; and in some instances, long-term foreign loans to finance the necessary shifts in production.

In view of these requirements, Mikesell holds out little hope for a prompt elimination of trade and exchange restrictions. He therefore devotes close attention to working out a code of reasonable foreign exchange practices, concentrating on the problem of ensuring that the restrictions are used to offset enduring balance-of-payments difficulties generated by external conditions, not to furnish disguised protection or merely temporary relief, and on the related problem of confining discrimination in such restrictions to a country whose currency is scarce.

Ultimately, however, he holds that the free world must return to a free multilateral trading system based on currency convertibility. This will have to be approached via a gradual removal of restrictions, led by Britain and the EPU countries. Additional reserves will be needed, probably in the form of an American loan, and of course structural readjustments must be promoted by inducing mobility and by requisite changes in currency values. A fluctuating exchange rate may be appropriate for some countries, and in any event, the United States must aid the approach to convertibility by avoiding a serious depression and by liberalizing its trade policies.

I find relatively little to disagree with in Mikesell's analysis of the causes of the pattern of restrictions that confines the world's trade, in his stress on the need for structural adjustments, or even in his statement of the underlying requirements for these adjustments. Is he not, however, unduly cautious in his approach to convertibility, especially if convertibility of sterling and the leading European currencies were accompanied by the adoption of flexible exchange rates? In view of the substantial improvement in the reserve position of the nondollar countries, the arrest of inflation, and the very considerable structural adjustments in production that have taken place, there would appear to be ample grounds for believing that convertibility is now within reach, provided it were not attempted to hold to fixed exchange rates. Were the latter flexible, the need for additional reserves would be reduced or

eliminated, and the mobility required for further structural readjustments promoted. Quantitative import restrictions, substantially relaxed in the last year or so, could be eliminated after a trial period. Exchange controls, however, would go by the board with the establishment of convertibility.

A more significant issue is whether, with the rapid increase in population in the underdeveloped countries, increased domestic production of foodstuffs can meet requirements. Given the maximum such increase possible, will not rising demand and costs make increased dependence on land-rich countries (including the United States and Canada, but also Argentina, Australia, Burma and Thailand) more economical and even necessary? If this is so, further structural adjustments will be required, including perhaps a shift in the densely populated underdeveloped countries toward the production and export of light consumer manufactures. I am not at all sure of the answer, but I should have liked to have seen this issue discussed.

Another point: while a liberalization of U. S. trade policies would unquestionably help, the more vigorous competition in American markets Mikesell wants to see can hardly be expected to appear during the life of the escape clause in our present tariff laws. Until this is eliminated, why should European exporters invest heavily in developing American outlets, only to be confronted by such an increase in duties as that recently experienced by Swiss watchmakers?

But these criticisms are relatively minor. Mikesell has written a scholarly book which sheds much light on an important and complex subject.

P. T. Ellsworth

University of Wisconsin

The Future of Sterling. By A. C. L. Day. (New York: Oxford Univ. Press. Oxford: Clarendon Press. 1954. Pp. viii, 228. $2.00.)

The central theme of this well-written and provocative book is that "present attempts to move towards a system of completely free convertibility and non-discrimination are ill advised," and that efforts to extend the use of sterling as an international currency "can involve the British economy in costs that are not commensurate with the advantages."

The author, lecturer in the London School of Economics, opposes the extension of sterling convertibility into dollars to the nondollar, nonsterling world (read Europe) for two distinct reasons. First, he finds that discriminatory controls against the dollar world may be a way "in which a country can *permanently* maintain its real income at a higher level in relation to the incomes of other countries than would be the case under non-discrimination" (p. 96). The dollar problem is the result of decisions by the nondollar world to discriminate, and thereby to "exploit" the dollar world through more favorable terms of trade. If discrimination were abandoned, he asserts, the dollar problem could be ended; but exchange-rate adjustments would be required, terms of trade would move adversely, and real income in the nondollar world would be lower. Moreover, the control of central dollar reserves has enabled Britain to impose discriminatory dollar-import policies upon the

rest of the sterling area, and thus to "exploit" the primary-producing members by forcing them to buy British rather than American goods. The abandonment of discrimination in favor of more liberal trading policies would produce a decline in Britain's real income, and is therefore not in Britain's interest.

Day's second reason for opposing convertibility relates to the decline of London as an international financial center since the "high noon" of sterling power before 1914, and the rise of New York as a rival financial and trading center. If the convertibility of sterling into dollars were extended to Europe, it would make possible an end to Europe's dollar problem, he says, but would concentrate the burdens of convertibility upon Britain alone. Most probably, there would occur not only a dollar drain from the British reserves, but it would also become more difficult for Britain to continue to impose dollar-discriminatory policies upon the overseas sterling countries. Even if this initial strain could be successfully met, the "serious costs of convertibility are the continuing ones and the ones which may arise in periods of difficulty" (p. 137). The danger of capital flight from Europe to America would be opened, and the building of gold and dollar reserves by other countries would become possible, directly or indirectly, at the expense of British reserves. ". . . Sterling Area arrangements make Britain extremely vulnerable to fluctuations in the trading position of overseas sterling countries; to extend the use of sterling as an international currency would tend to increase the number of directions from which these pressures could come" (p. 158). Day finds present British gold and dollar reserves far from adequate to meet these pressures.

As an alternative to the moves toward nondiscrimination and convertibility, which Day fears would concentrate excessive burdens upon Britain, he proposes a combined European Payments Union-Sterling Area currency union, which would absorb and distribute the shocks originating in the "unstable and unpredictable" American economy. The purposes of this union would be to form a defensive front for discriminating against the dollar world in the event of an American depression, and to create an ample supply of international currency. The latter function is not being performed by the United States, and Day does not want to see Britain perform it because of the dangers involved. In effect, he would extend and modify the present European Payments Union to be a channel for all payments between dollar and nondollar countries.

The author of this controversial book performs a valuable service in raising many pertinent questions about convertibility, and in so far as he urges caution for Britain in the extension of sterling convertibility, he gives the right answer. But in the reviewer's opinion, this right answer is given for the wrong, or at least questionable, reasons. There are at least two key points at which the author's analysis may be challenged. First, it is asserted, but not demonstrated, that discrimination allows a country to attain a *permanently* higher level of real income. Although the author fails to explain it, this reasoning is apparently based on an extension of the "optimum tariff" argument, according to which discrimination may raise the level of real income by

improving the terms of trade at the expense of the trading partner. He ignores, however, the practical possibility that the trading partner might choose to retaliate—a course which the dollar area has foregone for political reasons since the war. Although his argument turns on this point, Day himself does not always appear to be convinced that discrimination is best: "Discrimination may be a primrose path which is always more attractive at any particular time but which may lead one eventually to a worse position than that resulting from the braver course" (p. 49).

Second, Day considers British reserves inadequate to restore sterling convertibility unless they are equal to short-term sterling liabilities and longer-term liabilities easily realized, and also sufficient to meet Britain's own payments fluctuations. Surely this is asking too much. As a bare minimum, he is willing to settle for a one-for-one ratio of gold and dollar reserves to quick liabilities, but even by these standards, British reserves would have to rise from their present level of $3 billion to at least $10 billion to avoid the "danger of the British bank collapsing." This view is not only unduly pessimistic, but it also fails to take account of the usefulness which sterling possesses as a means of international payment, and assumes that the only function of the pound in international finance is to stand in the place of gold or dollars. In discussing the advantages of international banking to Britain, the author leaves much unsaid; in presenting the potential costs, he may well be overstating the case.

This is a book of ideas and interpretation, rather than of fact and description, based not on original research, but on the writings about the sterling system by W. A. Brown, Jr., Ragnar Nurkse, J. M. Keynes, Imre de Vegh, A. R. Conan, F. V. Meyer, and others. Many of its most valuable contributions lie in the lucid analysis with which the author has embroidered his main theme. For example, his discussion of the conditions of stability of a currency union is a genuine contribution. His chapters on The Present Extent of Convertibility and on The Extension of Convertibility are a valuable piece for anyone wishing to understand what convertibility is all about, and the special problems that may arise. The fuller convertibility of European currencies and the reduction of discrimination in international trading, however, continue to be desirable objectives, in the reviewer's opinion, despite Day's able pleadings.

Kenneth M. Wright

New York, N.Y.

Britain in the World Economy. By D. H. Robertson. (New York: Macmillan. London: Allen and Unwin Ltd. 1954. Pp. 92. $1.75.)

The only thing a reviewer can say about these four lectures is that they are everything one is accustomed to expect from D. H. Robertson. The lectures are about the United States, as well as Britain, in the world economy; but they are also about economists, who might perhaps be a little more careful about policy prescriptions than they have sometimes been.

Great Britain has met the postwar problems of rehabilitation and expansion

of her economy with some success; but the pattern of savings, particularly private vs. government savings, and the pattern of investments, leave much to be unquiet about. One aspect which is only partially within the control of the British government is, of course, the balance of payments. Robertson's discussion of the Sterling Area points out that it originally grew for perfectly "natural" reasons; that the advantages and disadvantages of the Area to its individual members changed with changing conditions, so that it would be difficult to say whether on balance the mother country had exploited, say, Australia or vice versa; that it still fulfills a useful purpose; but that it is hardly an answer to all questions, or even to the question of the dollar shortage.

The problem of the dollar shortage is everything orthodox economists (including Robertson himself) have said about it before in terms of wrong domestic monetary and fiscal policies or wrong exchange rates. But the recalcitrance of the problem stems (1) from the dynamic nature of the economies, which creates constant problems of adjustment to rapidly changing comparative advantage; (2) from the fact that whenever the United States experiences some "little hiccoughs of stocktaking or indecision like those of 1938 or 1949" (p. 60) the rest of the world trembles; and (3) from the fact that countries suffer from being split personalities in wanting to export but not to import.[1]

"Have I said enough to persuade you that when one of the partners to its operation is a country of multifarious resources and towering strength, the law of comparative advantage, for all its inexorable truth, needs a string of footnotes? That a quarrel and a baby are not the only things which it takes two to make, but that dollar shortage also falls within that interesting category? If so . . . what more [can] America . . . fairly be expected to do about it?" (p. 62).

The proposals, if not new, are sound. First, Robertson is against raising the price of gold. But that we should in this country try to keep our economy on an even keel is now generally accepted also by those economists who even within the memory of us merely middle-aged men thought this sheer wantonness. We could try to avoid "spasmodic and inconsiderate official action. If the Australians went on the tiles in 1950, if Malaya's fight against communism has been hampered by bewildering fluctuations in the price of her tin, the panicking and the tantrums of some of the United States purchasing agencies must bear, I think, no small share of the blame" (p. 64). And, of course, a more sensible trade and investment policy is required. Who could possibly disagree?

What is to be done in the meantime? In the last lecture entitled "Discrimination," Robertson points out that "as a congeries of countries between which

[1] Perhaps I might be allowed a comment on point (2) above: It seems as if the present downturn of American business does not have the catastrophic result of 1938 or 1949. (Robertson deliberately excluded 1929-1934 from consideration.) The reason seems to be that higher production everywhere and more sensible price and exchange-rate relations make it possible for the rest of the world to take in more of each other's washing without particular discrimination against the United States or hardships to themselves.

business contacts are close, means of payments and exchange stability probable if not assured, the Sterling Area seems to me to have a great and innocuous future; as a candidate for a permanent ring-fence I think its claims are low—if only because of the utter impossibility, so often conveniently forgotten by the fence builders in my country, of bringing Canada within the ring" (p. 75).

But the same kinds of trouble are really faced in a much greater degree by Europe which does not even have the advantage of that mysterious unity of the Commonwealth by means of which it is possible to be and yet not to be inside or out, republic or monarchy, sovereign or not. Whatever may be said for a European customs union, or even simply for substantially freer trade within Western Europe, the problem cannot be solved by producing "pleasant luxuries for mutual consumption rather than the things which contribute to the whole area's power of earning its essential requirements overseas" (p. 79). One wonders whether Robertson would at present care to add that, whatever may be said for increased East-West trade, this too would not solve the problem of earning Europe's bread in the face of the notorious necessity of financing this trade by long-term credits leading to as many "unrequited exports" as any repayment of war debts to, say India, did in the past. And as an old Anglophile, I feel very strongly with Robertson, that Britain has been quite unjustly accused of hindering European unity, and that "she has a good deal of reason to feel like Cordelia, less gifted than some who could be named at heaving her heart into her mouth, but not backward at helpful action" (p. 88).

It might be good for the world to go to school with Sir Dennis, and a more pleasant, witty and thorough schoolmaster would be hard to find.

WOLFGANG F. STOLPER

University of Michigan

International Economics and Public Policy. By HARRY G. BRAINARD. (New York: Henry Holt. 1954. Pp. xiii, 706. $6.00.)

This book is divided into five parts. Part I delineates the characteristics of international trade and finance with special attention to the importance and extent of trade, documentation, foreign exchange rates, and the international balance of payments. The theory of trade is traced in Part II from mercantilist philosophy through classical doctrine to modern theory. One chapter is devoted to national income analysis.

International finance is the subject of Part III, containing chapters on international investment, the problems of temporary and fundamental disequilibria, international banking, and international monetary cooperation.

The last two parts are concerned with public policy, one dealing with commercial policy which is primarily nationalistic, the other with policy which is oriented toward internationalism. In Part IV restrictions to trade such as the tariff, import-export controls, exchange control, international cartels, and the state in international trade are considered. International economic cooperation, economic development programs for underdeveloped areas, and Europe's postwar economic problems are discussed in Part V. The section

concludes with a chapter evaluating the possibilities for expanded world trade in the future.

By means of brief previews and résumés the reader is guided through the intricacies of the twenty-seven chapters. Each of the five major parts has an introduction pointing out the objectives of the section. Individual chapters close with a concise one- or two-page summary. Carefully selected tables insert up-to-date statistical information, and illustrative material is provided in diagrams which are not unduly complicated.

Most of the topics which customarily appear in an international economics textbook are included. Instructors differ, of course, in point of view with respect to certain aspects of international economics. For instance, some place major emphasis upon theory, and others upon policy. Some adhere to modern classical theory, others are proponents of the national income approach. Some favor the reduction of trade barriers, others sanction protectionism under certain circumstances. Hence opinions vary as to which topics should be stressed, and how much space should be allocated to each.

The author endeavors to follow a middle-of-the-road course, and does not support any particular school of thought. He produces a unified discourse by synthesizing elements drawn from many sources. There is no mere cataloguing of facts. The primary emphasis is placed upon the development of international trade theory, the significance of various commercial policies, and the relationship between theory and policy. Enough pertinent data are incorporated to provide an adequate historical and political foundation for analyzing current trade problems, and suggesting implications for the future.

The main theme is that in interregional specialization and trade lies a promise of increased human welfare and global peace. This can be attained through multi-angular trade transacted with a minimum of restrictions to the flow of goods and services. But the extent of world trade is in part contingent upon the outcome of unpredictable political conditions. Trade controls thrive in a divided world fraught with continuing economic and political disturbances.

A question may arise as to how much detail about the techniques of foreign trade should be inserted in a book concerned principally with the theory and policy of trade and not with foreign trade practice. Definitions of terms such as the trust receipt, the commercial letter of credit, the drawback, and the countervailing duty are not essential, for the terms are not used as an integral part of the subsequent discussion. Although it may be conventional to comment upon arbitrage transactions and the forward foreign exchange market, this hardly seems necessary from the point of view of either continuity or completeness. These are illustrative of minor subdivisions that might have been left out altogether.

A clearly defined structural outline is followed. But the interrelationship of the topics makes some overlapping inevitable. In a few cases, the treatment of a subject under more than one topic might have been modified. For example, comments about the Export-Import Bank appear in at least four different chapters. With a slightly different organization, some of this material

could have been combined, and hence the space utilized reduced. A similar situation exists with respect to the presentation of certain features of postwar economic policy.

The book is probably most suitable for a two-semester course. The instructor of a one-semester course who prefers to supplement the textbook with outside reading may need to omit a limited number of chapters or parts of chapters.

If the adult citizen is acquainted with the basic principles of international economics, he should be in a better position to appraise the policies which affect world trade and finance. Professor Brainard's book is intended primarily as a textbook for the undergraduate college or university student who has completed a course in elementary economics, but it is appropriate for the general reader also. The role of theory in the determination of public policy is investigated, and the leading issues in the international economy of today are examined against a background of related historical and political factors. Comprehensive contents, orderly design, and a lucid style of writing produce an interesting and informative volume.

GRACE BECKETT

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Introduction to International Economics. By DELBERT A. SNIDER. (Homewood, Ill.: Richard D. Irwin, Inc. 1954. Pp. xx, 472. $6.00.)

International economics is an area where it is easy for the disciplines of the social sciences to get mixed up. A textbook that touches on international economic policy cannot avoid historical allusions and political factors. Furthermore, the students in courses in international economics are likely to be of mixed backgrounds and have diverse academic majors. A real dilemma is posed for an author who purports to write a book that is understandable to a student majoring in government, and is at the same time challenging to a student with a background in economics or business. The dilemma, of course, is self-imposed, since anyone who has read textbooks knows that writing them must be a dreary business. The author of this book, however, has done a good job in unifying the diversity in his material, and students with varying preparations will read it with above average interest.

The book has the conventional coverage found in books of the international economics rather than of the foreign trade variety. Part I covers theory including descriptive material relating to the bases of trade. The happy feature of this section of the book is that it does not present theory as an exercise in the development of thought from the classicals through their critics to the modern school, but rather as a coherent explanation, couched in modern terms, of how and why trade takes place. The level of discourse seems to require only the background of a course in Principles. A substantive weakness appears to be the lack of incorporation of any of Frank Graham's criticism of the classical analysis, and the author's own choice of the classical model that gives emphasis to demand in the determination of the terms of trade. A possible teaching problem may arise when students try to understand capital movements (Ch. 5 and 6) before they have read about the balance of

payments (Ch. 7 and 8).

In Part II, the problem of international disequilibrium is presented in terms of exchange-rate and balance-of-payments disequilibrium. The complexity of the problem is illustrated by a chapter on the dollar shortage. The discussion of exchange rates and the balance of payments shows imagination and good organization. The presentation of the current supply of a country's foreign exchange as depending upon the foreign demand for that country's currency can be a very confusing device unless the instructor is willing to spend an inordinate amount of time explaining the device itself. The discussion of exchange rates is not couched in the usual framework of slavish devotion to categories of monetary standards, but rather emphasis is placed on the most important factors in exchange rate determination under different standards and at different times.

Part III, which deals with the process of balance-of-payments adjustment, is almost uniformly good in facilitating student understanding of complicated ideas. In Part IV, on public and private barriers to trade, the theory of tariffs receives especially good and refreshing treatment. In many texts, economic analysis seems to drop to a lower level when tariffs are discussed, but not so here.

Part V presents the requirements, problems, and organizations in international economic cooperation. The basic conflict between domestic stability and free international trade serves as a basis for discussing the likelihood that the international organizations will be able to achieve a reconciliation. The book ends with a chapter on the role of the United States in the world economy.

The author has attempted to make his presentation meaningful to the student by including historical or current problem material in every chapter or in contiguous chapters to illustrate his theoretical points. In this he has had better than usual success. The result gives greater unity than does the injection of too much history for its own sake, or the separation of problem material into a section remote from the treatment of theory. In his selection of problems to be covered, the author has shown restraint and good judgment. The text is not loaded with separate chapters on matters which are pertinent only to small parts of the major argument. Cartels and combinations, European economic recovery, dollar shortage, and problems of international economic cooperation are given emphasis.

Although the book is designed for use in a course for which only a course in the principles of economics is a prerequisite, the student will find that money and banking will also be helpful in understanding the adjustment process. The book is designed for what is probably the highest level course in its field in which a multisubject textbook should be used. It certainly is not designed, without considerable supplementation, for courses that include graduate students. Altogether this book seems to be a very good teaching adjunct.

SAMUEL E. BRADEN

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Business Administration

Marketing Channels for Manufactured Products. Edited by RICHARD M. CLEWETT. (Homewood, Illinois: Richard D. Irwin, Inc. 1954. Pp. xviii, 518. $6.00.)

This collection of essays written by businessmen, market consultants and university professors and edited by Richard M. Clewett for the American Marketing Association, gives students of our economy a chance to study channels of distribution in considerable detail. The volume is divided into three parts with the material "arranged so that the reader moves from the general to the specific."

In Part I the first chapter brings out, among other things, the conceptual notion of assortments and relates this concept to the determination of channels. Households possess assortments of goods which have to be replenished and, when possible, added to. The assortment of goods (plus an assortment of service), is, in fact, their standard of living. This assortment is based on use (utility to the household). However, at other steps in the channel of distribution, *i.e.,* at the retail and wholesale level (as well as at the manufacturing level), the assortments are based on technological considerations and economies of scale. The fact that the assortments are different at different levels in the marketing mechanism of the economy is generalized as the concept of the "discrepancy of assortments." One of the chief justifications for the use of middlemen and channel specialization rests on the economies inherent in specialized assortments.

The remaining two chapters of Part I trace the history of marketing and marketing channels from colonial times up to and including the "rack jobber" of today's supermarket operations. The impact of the increase in and urbanization of population, the advent of the automobile and better transportation, improved communications, and the like, are linked to the rise of large-scale retailing, mail-order distribution, chain store development and the consequent impact on the channels of distribution.

Part II is concerned with the analysis of twelve specific product categories: automobiles, automotive tires, canned foods, frozen foods, household washing machines, meat and related products, men's suits, petroleum products, shoes, steel, textiles, and women's apparel. In general, the authors demonstrate that the channel of distribution is dictated by the economic environment surrounding the particular products, such as the structure of the industry from which the product comes, the characteristics of the product itself, and the kinds of buyers and the nature of their demands. The determination of channels is by no means limited to the above considerations. As is amply pointed out, the size of order (shoes), the pull of a nationally known private brand (washing machines), the degree of integration in the industry (petroleum), and a host of other considerations all play their part in the determination of specific channels.

To the empirically minded this section of the book will be the most interesting. Some of the essays amount to miniature industry studies; others are con-

fined narrowly to the channels of distribution involved. The uneven treatment is not in itself of great consequence. However, descriptive detail given without a clear demonstration of the manner in which the situations described bear upon the determination of the channel of distribution puts a burden on the reader which should have been assumed by the author.

The opening chapter of Part III sets forth the various patterns of distribution (widespread, selective, exclusive) and describes the many institutional types which comprise the "links" in the various channels. The second essay analyzes the changing needs of the firm, *i.e.*, new products require channels different from the old, some channels provide promotional impetus while others are geared to fill only existing demands, etc. Several excellent case studies are offered.

The next two chapters deal with the selection of channels from the point of view of sales analysis and distribution cost studies. The former is based on an American Marketing Association study done in conjunction with the National Association of Manufacturers; the latter is based on studies made by the author of this chapter for the U. S. Department of Commerce.

The impact of federal legislation on the course of distribution is set forth in the concluding essay. The restrictive effect (as far as the use of channels is concerned) of the Fair Trade laws, the Robinson-Patman Act, the Clayton Act, and so forth, are readily understandable. This reviewer feels that in this chapter too much space was devoted to the content of these laws rather than to the impact of these laws in determining the channel of distribution.

This book should be of considerable value to those interested in the workings of the market place, particularly to those who devote the major share of their attention to price and/or product competition. Oftentimes the competition that hurts most is not the competition one firm gives another nor the competition one product gives another product, but rather, for example, the competition the chain store system of distribution gives the independent single store system of distribution or the competition the private brand gives a national brand. In such situations the institution in question or the brand product in question is quite likely to be merely the terminal point in a new or different channel of distribution; and it is to a large extent the method or channel of distribution used in getting the product to the final user that is the heart of the matter.

PERRY BLISS

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Industrial Organization; Public Regulation of Business

Federal Antitrust Laws. Lectures delivered at the University of Michigan Law School, June 17-June 19, 1953. Edited by S. CHESTERFIELD OPPENHEIM. (Ann Arbor: University of Michigan Press. 1953. Pp. 321. $7.00.)

In the summer of 1953 the University of Michigan Law School held a three-day conference on the antitrust laws. As is customary in such gatherings,

the participants were primarily lawyers in private practice with a limited admixture of other persons. Special interest attached to the proceedings, however, because the chairman, S. Chesterfield Oppenheim, had recently been appointed by the new national administration as head of a committee to review the antitrust laws and report recommendations for change. Moreover, those who delivered papers included the chairman of the American Bar Association's Committee on the Sherman Act, the chairman of the Chicago Bar Association's Committee on Antitrust Law, the chairman of the Federal Trade Commission, two former heads of the Antitrust Division of the Department of Justice, and four high officials of the two law-enforcement agencies.

Though the timing and chairmanship of the conference might have been expected to call forth a sustained discussion of proposals as to policy, such a focus is evident only in three papers concerned with proposals to "expand" the application of the rule of reason and in a paper by the recently appointd chairman of the Federal Trade Commission. The other 19 papers do not differ in tone and content from those customarily delivered in antitrust symposia. They deal with several distinct subjects: the tests of monopoly employed in recent judicial decisions, the relation between patent rights and the antitrust laws, the application of the Sherman Act to manufacture abroad, various aspects of the law of price discrimination, the incipiency doctrine under the Federal Trade Commission Act, the status of state resale price maintenance laws under the McGuire amendment to the Federal Trade Commission Act, the bearing of the antitrust laws upon the conduct of trade associations, and certain procedural problems encountered by private attorneys and law-enforcement agencies in the investigation and trial of antitrust cases. With such a range of subject matter, there was no opportunity to treat any one subject thoroughly; and with so many authors, there was naturally a considerable variation in the quality of the treatment.

The three papers on the rule of reason are disappointing. Two, by attorneys in private practice (one of whom was formerly general counsel of the National Recovery Administration), propose sweeping but vague relaxations of antitrust policy for reasons which are insufficiently set forth. The third, by a private attorney who formerly had charge of the Antitrust Division of the Department of Justice, insists that the existing law is satisfactory.

Though the three papers do little to clarify the issues, the problem underlying them is actually the stormiest in antitrust policy. It springs from the fact that large diversified business enterprises sometimes possess a limited but substantial power to restrain trade and sometimes use it decorously but effectively; and that such enterprises may be able to harmonize their activities by means that fall short of explicit agreement. Law-enforcement agencies contend that the public problems thus created are like those traditionally created by monopolies and agreements in restraint of trade and that the practices which produce these problems are sophisticated versions of old offenses. The managers of large enterprises and their lawyers insist that the problems either do not exist or are substantially different from the traditional antitrust problems, and that an effort to apply the antitrust laws to them

means, in practice, an attempt to outlaw activities that are inherent in large business enterprise. The enforcement agencies have persuaded the courts to condemn some of the practices in this twilight zone, and, though their success has been only partial, appear to be willing to rely upon judicial decision, case by case, to cope with the issues that remain unsettled. Alarmed at the trend of the decisions, many of the spokesmen for large enterprises desire to alter the statute law. From time to time, some of them have proposed that the law be amended or interpreted by Congressional resolution, (a) to make the law of conspiracy less effective against loose or tacit agreements, or (b) to give a government official authority to approve arrangements that might otherwise be unlawful, or (c) to modify the present principle of the law, which is that competition may not be substantially restricted, by providing that such restriction is forbidden only if the government can prove that its economic consequences would be objectionable. The suggestion that the use of the rule of reason be "expanded" is one version of the third proposal. Thus far all such suggestions have been weakened by the fact that their full effect is difficult to predict. Some of them might nullify more of the antitrust laws than the proponents desire; others might actually enlarge the opportunities for government to intervene in the activities of large enterprises.

The problem is a continuing one. There is little chance that the new forms of business power will be allowed to exist uncurbed nor that as the curbs develop the antitrust laws will remain unmodified, whether by judicial interpretation or by Congressional action. The interaction between the law and big business will involve recurrent controversy. It is to be hoped that a more thorough economic and legal analysis will narrow the disputes and focus them sharply upon the significant issues.

The specialist in antitrust problems will find many of the remaining papers interesting for their technically informed comments upon recent cases and for their exposition of current opinion among lawyers as to antitrust law and policy. To the less specialized economist, some of the papers will be valuable, particularly Clare Griffin's discussion of economic objectives and antitrust policy and Kenneth Carlson's illuminating comment upon tests and evidences of monopoly under the Sherman Act.

But *caveat legitor* is the proper warning for the nonspecialized economist who reads most of the legal papers. Though such discourses, being addressed to a skilled professional audience, are devoid of deliberate claptrap, they are full of pitfalls for the inexpert. The professional bias of a practicing attorney tends toward controversial interpretations of law. A lawyer employed by a law enforcement agency is usually concerned to establish his agency's authority to proceed against conduct not yet condemned by the courts, and thus has an incentive to interpret his defeats narrowly and his victories broadly. The function of a lawyer in private practice is largely to forecast the decisions of courts as to conduct not yet before them, by examining the implications of statements they have made in deciding similar but not wholly analogous cases. In these forecasts the private attorney is likely to interpret the law adversely to the interest of his clients; for it is safer to warn against what

might not actually be condemned than to expose a client to condemnation for what he has been told was lawful. In interpreting court decisions, therefore, both public and private lawyers often suggest that activities declared to be unlawful in a particular setting would be held unlawful under other circumstances also, and that language used by a court in discussing these activities can be taken out of context and applied as a statement of general principle. Thus nearly every antitrust symposium contains frightening (or heartening) assertions that new ranges of business conduct have been or are about to be forbidden by the courts. Assertions of this kind are persuasively supported by brief quotations from complicated judicial opinions and brief summaries of the complex facts of the cases that have been decided. The legal audience, being familiar with the underlying materials, is usually able to decide for itself whether it prefers a different interpretation of the facts and the legal judgments. The general reader has no such protection unless he finds the same cases conflictingly described in different papers; and in that event he has no basis for choice between the rival interpretations. He is likely to bring away from his reading a distorted picture of the applicable law.

CORWIN D. EDWARDS

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Report of the Federal Trade Commission on Changes in Concentration in Manufacturing 1935 to 1947 and 1950. (Washington: Supt. Docs. 1954. Pp. 153. 45¢.)

Any discussion of the performance and prospects of American capitalism inevitably turns to the question of the trend in concentration. While in the 1930's increasing concentration and the "decline of competition" were the dominant theme, the assumptions and logic underlying these ideas have been attacked in the postwar period, and publicity has been given to investigations which suggest that there may not have been any over-all increase in concentration in the United States since about the turn of the century.

The heat of debate on this important issue has been aggravated by the lamentable shortage of information. Serious investigators therefore welcome any study which promises to bring more light. The report of the Federal Trade Commission is such a study.

The Commission's findings regarding the general trend in concentration may be summarized as follows:

1. For manufacturing as a whole, the largest 5, 50, 100, and 200 firms account for a very slightly higher percentage of the value of output in 1950 than in 1935 (p. 17). However a comparison of 1950 with *1937*, which is made for the largest 50 firms only, shows a slight decrease (called an "apparent decrease") in concentration (p. 21, fn. 30).

2. Of 30 industries in which concentration of employment in the largest 4 firms is measured for both 1935 and 1950, 14 show an increase, 12 a decrease, and 4 no change (p. 24). Most of the changes are small and since the 1950 figure is an estimate, there are many cases in which the true direction of change is not certain.

3. Of 114 industries for which concentration of the value of output in the largest 4 firms is measured for both 1935 and 1947, 45 show an increase, 60 a decrease and 9 no change. Most of the changes are small (compiled from Appendix E).

While the data for 1935 and 1947 have appeared in previous government publications those for 1950 are new.

To the reviewer the above picture conveys the impression that the general level of concentration has changed very little between the middle 'thirties and the postwar period, and that the direction of change is uncertain. This does not seem to be the Federal Trade Commission's interpretation of its findings. While there is no summary like the above in the report, and no general statement about the trend, there are numerous indications that the authors attach significance to those pieces of the evidence that suggest a rising trend of concentration. For example, there is an extended discussion of the "increase in overall concentration" shown by the data for the largest 200, 100, 50, and 5 manufacturing firms (p. 16 ff). It is implied, though not stated (p. 19) that this represents the "long term trend in concentration" and footnotes point out that "the ratios are believed to represent a conservative statement of the increase in concentration." The press release issued in connection with the report emphasizes the increase in concentration.

The reader using these data will of course bear in mind that two terminal points do not make a trend, particularly when the change is small and (according to the scanty evidence based on 1937 figures, p. 21) well within the range of year-to-year fluctuations, the figures are subject to errors of estimation (at least for 1950), and only a few of the many possible measures of concentration have been tried out.

The really remarkable finding that should have been emphasized and that emerges also from other studies for this period, is the stability of the degree of concentration at a time when total output and the number of firms were rising very rapidly. Under these conditions the stability of concentration implies a significant increase in the degree of *inequality* of firm-size. The 200 largest manufacturing firms, which accounted for 38 per cent of output in 1937 and 41 per cent in 1950, constituted one-tenth of one per cent of all manufacturing firms in 1935 and only seven-hundredths of one per cent in 1950. It is of interest that this increase in the inequality of firm-size took place in a period when, according to recent studies, there was a significant *decrease* in the inequality of personal incomes.

The presentation of data on concentration in 1935, 1947, and 1950 is followed by a discussion of the "association of certain variables with changes in concentration." There is, first, a cross-section study in which changes in concentration are examined in relation to changes in other variables. Next, there are 12 case studies of industries with particularly large changes (positive or negative) in concentration.

The reader who wants to know why these relations are studied is told explicitly both that "the study is *not* concerned with the *effects* of concentration" (p. 1) and that "no attempt is made . . . to determine any causal

relationships" (p. 50). The reviewer, nevertheless believes that the causes of concentration are what the authors have in mind.

The cross-section study is based on scatter diagrams in which the change in concentration between 1935 and 1947 is plotted against the 1947 to 1935 ratio of (1) number of plants, (2) real output, and (3) plant concentration. Moderate correlations in the direction that is to be expected are found in all cases. Since, however, more searching methods of analysis are not used and no hypotheses are formulated, there is no indication of the extent to which these three variables represent independent causes of change in concentration, and what these causes are (nor is it clear why these particular variables should be chosen rather than others). The reviewer would suspect, for example, that a change in real output influences concentration only *via* a change in the number of firms. This assumption could be tested by using the number of plants as a rough indicator of the number of firms. While a thorough test is time-consuming, the following brief one tends to confirm the suspicion: There are 22 industries in which the number of plants *decreases* (Appendix E), and of these only 3 show a decline in concentration (in the leading 8 firms). In this group of 22 industries the rank correlation between change in real output (giving the greatest increase in concentration and smallest rise in real output the rank 1) is −0.07. Thus there appears to be no correlation between real output and concentration within a group that is relatively homogeneous with respect to change in number of plants. The report, however, presents the conclusion that "a rapid expansion in output, particularly if it takes the form of a marked increase in the number of plants, tends to be associated with decreasing concentration" (p. 57). This conclusion is not justified by the analysis unless "particularly" means "only."

The study shows that while the change in firm concentration is correlated with the change in plant concentration, there is an appreciable proportion of industries in which firm concentration increased although plant concentration decreased. In this group, as the report points out "factors in addition to changes in technology affecting plant size have been at work" (p. 61).

The reader who turns to the case studies hoping to learn something of these factors is likely to be disappointed. The case studies contain much interesting material including some indication of factors making for changes in concentration. They take the form however of an enumeration of miscellaneous information with little attempt at relating it to the changes in concentration and, where such attempts are made, no investigation of the relative importance of different factors.

Frequently such analysis as can be found in the report is not well thought out. For example, there is a detailed discussion of the cases where employment and output concentration do or do not move together without stated purpose and without apparent conclusion (p. 26). In the discussion on window shades the category of buyers "with limited means whose choice is restricted to the less expensive window shades regardless of preference" is distinguished from the group who "prefer venetian blinds but buy window shades because of the price differential."

The report does have the considerable merit of setting out in detail the methods and problems involved in obtaining economically significant measures of concentration. For example, the fact that an "industry" as defined for statistical purposes can frequently not be regarded as coinciding with a market means that concentration of an "industry's" output is often not relevant to problems of market power. Like other studies the report deals with this problem by eliminating industries that do not meet certain rough tests of economic homogeneity and inclusiveness. For these tests the Federal Trade Commission has, however, apparently accepted the "*product*" definitions of the Census of Manufactures, although there is really little more reason for accepting these than there is for accepting the Census industry definitions. For example, beet sugar and cane sugar are included in the Federal Trade Commission Study as separate industries although they are completely substitutable in use.

The Federal Trade Commission has compiled data, some of it new, in a very useful form. The discussion of methods and problems will be welcomed by readers with a specialized interest in this field, and the case studies also contain interesting material.

GIDEON ROSENBLUTH

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Public Utilities; Transportation; Communications

Operating Rights of Motor Carriers (Interstate Commerce Commission Policy Regarding Property Carriers). By CHARLES A. TAFF. (Dubuque: Wm. C. Brown Co. 1953. Pp. xi, 251. $4.00.)

How the Interstate Commerce Commission has used its power under the Motor Carrier Act of 1935 to control participation in freight transport by highway is the theme of Professor Taff's book. Following some introductory description of the motor-freight industry and of Commission processes and authority, the main analysis explains the issues faced by the Commission and its handling of them as disclosed in some 425 cases selected from the now numerous volumes of motor-carrier reports. The book aims primarily to supply needed information to present and prospective operators and their attorneys, and to provide supplementary text material for courses on motor transportation and public regulation.

The problem of "operating rights" is mainly one of applying appropriate standards in certifying common and contract carriers in regular and irregular route movements, scheduled and nonscheduled, and with various specializations in products carried and services performed. The licensing of brokers who solicit business and arrange back-hauls and other kinds of service is also discussed. Many of the certification issues are merely matters of defining categories, distinguishing common and contract carrier service, for-hire service and trucking incidental to other business, regulated and exempt operations such as the carriage of farm crops, interstate and intrastate movements.

Borderline situations are endless, and always the applicable control depends on determining the relevant category and on keeping the carrier in it—not an easy matter in an industry whose virtue is often said to lie in its flexibility.

Substantively the problem of certification is one of judging adequacy of service, the "public convenience and necessity" of whatever is proposed. Basically the theory of regulation as it evolved in the case of railroads and local utilities is one of protection against unavoidable monopoly, with emphasis mainly on rates. But motor-carrier regulation rests mainly on a theory of protection against excessive competition, and its concern is largely with entry and expansion. The Commission declares that competition is necessary to progress, that no carrier is entitled to protection from it, and in particular it undertakes to keep the railroads from gobbling up highway competitors; but its job is to enforce a statute which denies the ability of markets to control capacity properly in this industry, eliminating unneeded and inferior services and preserving general health. Free entry is deemed upsetting and destructive; and the Commission's task is to reconcile these conflicting values.

Taff sticks to his knitting, avoiding philosophic digression, and with reasonable clarity and completeness, and fuliness of citation, tells how the Commission applies this policy. He does not use his findings, as well he might, to re-examine the theory of it or discuss its evident significance in the development of public control of business. One may still wonder how fully the characteristics of motor transport per se dictate so extensive a control, or how much it arises from pressure to harness trucking because railroads are harnessed, or contract carriers because common carriers are, or whether it reflects the more general distrust of competition that generated N.R.A. codes, resale price maintenance, and farm price adjustment. A quarter-century ago this reviewer surmised that, for anywhere-for-hire carriers at least, certification would resemble the licensing of grocery stores.[1] Now we have such control; and to give effect to administratively determined public need, carriers must often be cramped into uncomfortable and doubtfully economic categories. At the same time a certain stabilization results—a stabilization for which other candidates may easily be found in the broad area of market-guided enterprise.

SHOREY PETERSON

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The Gulf, Mobile and Ohio: A Railroad that Had to Expand or Expire. By JAMES H. LEMLY. (Homewood, Ill.: Richard D. Irwin, Inc. 1953. Pp. viii, 347. $6.65.)

The Gulf, Mobile and Ohio is a recent addition to our mainline railways, and it is the success of this road which Professor Lemly has chosen to describe and analyze. Conceding that the circumstances surrounding the development and consolidation of this road may be unique, the author has sought to determine the factors which explain the success of the G. M. & O. and leaves

[1] "Motor-carrier Regulation and its Economic Bases," *Quart. Jour. Econ.*, Aug. 1929, XLIII, 604-47.

it to others working on railroad problems to judge if comparable situations are to be found.

Most of the volume (Parts I to III) is devoted to a history of the transition of a group of short-line southern railroads into a major Midwest-to-Gulf route in highly competitive territory during the period 1920 to date. This transition was a remarkable managerial achievement considering the history of most railroads and of consolidation during the same period. Despite the immense amount of necessary detail, the exposition is interesting and easy to follow.

Corporate and financial policies of the board of directors were expansionist from the beginning, but in his analysis of the growth of the G. M. & O. (Part IV), Lemly places greatest emphasis on the quality and continuity of executive direction. Special praise is given to executive policies affecting public and labor relations, operations, and traffic development. Other factors considered by the author to have been of major importance include: "a splendid group of workers"; influence of other railroads (especially the Illinois Central and the Burlington); the role of government agencies (particularly the Interstate Commerce Commission, Reconstruction Finance Corporation, and state commissions); availability of complementary lines; and finally, of course, economic development of the territory through which the G. M. & O. operates. With respect to the role of government in this case, the author makes clear, but does not attempt to resolve, the controversies concerning the efficacy and economic wisdom of government policies favoring "weak" lines.

Histories of small predecessor roads (Part V) are often difficult to find, and their inclusion here should be helpful to economic historians and for reference purposes.

Lemly was fortunate in having available to him all the records of the G. M. & O. for his unrestricted and unsupervised use, and the result of his case study is a valuable contribution to the history of American railroads and of business enterprise which should be of interest to general readers as well as to those interested in transportation.

S. L. Miller, Jr.

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Land Economics; Agricultural Economics; Economic Geography

The Flood Control Controversy—Big Dams, Little Dams, and Land Management. By Luna B. Leopold and Thomas Maddock, Jr. (New York: Ronald Press. 1954. Pp. xiii, 278. $5.00.)

Flood control in the United States is big business in more than one sense. This timely and well-organized book written by two hydraulic engineers for a broad audience is sponsored by The Conservation Foundation. For the lay reader, it provides a useful introduction to some complex problems of public resource development.

The best portions of the book are those dealing with the hydrologic analysis. The possibilities and limitations of engineering structures and land management and the need for better physical data are well developed. As a matter of

emphasis, a more thorough discussion of the frequencies of floods of various magnitudes and a more detailed appraisal of the statistical problems encountered in ascertaining their probabilities would have been desirable. These problems are basic for economic evaluation.

In the comparative discussion of upstream and downstream programs, there is conscientious striving for impartiality. The authors avoid taking sides between the programs of the Department of Agriculture and the Corps of Engineers (the important program of the Department of the Interior is not discussed). Both programs are criticized. Still, that of the Department of Agriculture comes in for especially severe criticism. This criticism is based partly on the hydrologic analysis but largely on the economic and institutional implications. In this latter area, the book is not nearly so strong. Yet, at least to this reviewer, the most crucial problems of flood control are located in this area.

The authors regard "big dams" (built by the Corps of Engineers) versus "little dams" (built by the Department of Agriculture) as the heart of the flood-control controversy. It may be submitted that this is only one of the important issues and probably not the outstanding one. In stressing this issue, the authors do not seem aware that their views on the hydrologic possibilities and limitations of flood control are widely shared. Some readers may find the allusions to the ignorance of the public a little superabundant.

Among men of professional competence and good will, there is agreement that "little dams" and land management are ineffective in protecting the flood plain along the main stem against infrequent "major" floods. It is also generally accepted that, in the upstream program, flood-control benefits—if narrowly defined—are joint products with other quantitatively more important benefits.

But how relevant are these facts with respect to the economics of downstream protection against a "maximum," "100-200 year," or " design" flood relative to the economics of upstream control of smaller but more frequent floods? It is possible that institutional arrangements can be so designed that even a modern industrial economy can "live with" major floods In addition to a well-developed flood-warning system and flood-plain zoning, flood-damage insurance and public flood-damage relief would seem economic alternatives to protection against major floods in some important sections of the country.

Should the Department of Agriculture be criticized because it tries to interpret the various Flood Control Acts in such a way that the economies of joint production are secured for measures which affect "minor" floods? It would seem that the need for integration in the existing uncoordinated legislation concerning public resource development is a more critical issue.

The authors reject benefit-cost ratios as a basis for selecting projects. They propose as basis the degree to which local beneficiaries will pay a portion of the costs. This reviewer shares the authors' skepticism with respect to the present use of benefit-cost ratios. He is also in favor of a much greater participation of beneficiaries in the costs of a project. However, the willingness of beneficiaries to bear a portion of costs is influenced by a variety of deep-rooted

social institutions which govern repayment. In addition, the practical problems of assessing and collecting repayment are serious with respect to several important types of benefits.

The degree of participation of local beneficiaries in the costs of a project is no substitute for benefit-cost analysis as basis for project selection and financing. How can this degree be ascertained and made a dependable obligation without prior thorough benefit-cost analysis? Far from eliminating the need for such an analysis, a greater degree of local financial participation requires tightening of present analytical methods, both with respect to theoretical soundness and to realism in practical application. The book under review offers no suggestions for such reform in benefit-cost analysis.

Since the authors make no positive contribution to a socio-economic analysis of flood control, it appears unfortunate that they conclude their work with some unsubstantiated attacks against the multiple-purpose approach and against federal participation in resources development. Statements such as "basin planning and the multiple-purpose approach to water resource development is rapidly becoming a hydra-headed monster under whose weight the whole federal program may collapse" (p. 245) appear more related to political oratory than to the worth-while objectives which the authors have set themselves—and which they pursue successfully through most of their work.

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Labor

Power in Trade Unions. By V. L. Allen. (New York and London: Longmans, Green. 1954. Pp. 323. $5.00.)

The fundamental problem of combining popular control with administrative efficiency in trade unions has in recent years increasingly occupied the attention of students of the labor movement on both sides of the Atlantic. So often cited for a long-established and well-led trade union movement, Great Britain has produced suprisingly few published studies of trade union government since the Webbs' *Industry Democracy* in 1897. In view of substantial trade union adaptations to changed industrial conditions, Victor Allen, a lecturer in the extension division of Oxford University, has provided a significant and timely analysis of national union government and leadership in Great Britain.

Mr. Allen, who is a member of the Union of Building Trade Workers as well as a teacher in adult education working primarily with rank and file union members, is uniquely qualified to relate his research to firsthand experience. The organization of the book reveals a successful combination of the theoretical and practical approaches. Part I, "Trade Unions and the Democratic Principle," contains working definitions, comments on administration with respect to discipline and restraints on authority, and some negative conclusions on compulsory unionism. Part II, the "Delegation of Power," is based on a critical analysis of 127 written union constitutions representing 98.8 per cent of the

affiliated membership of the Trades Union Congress. Policy-making, the powers and functions of executive bodies, and the character of national leadership are treated with insight and fairness. Three valuable appendices include a lengthy case study of the development of a representative national convention of delegates of the woodworkers' union, biographical data on the general secretaries of 48 unions, and a discussion of trade-union voting methods.

The issues raised in the first part of the book are equally pertinent for the United States despite our different institutional background. What is the basic function of a trade union? To what extent is membership participation, beyond mere consent, really significant? Are large unions simply bureaucracies without compensating advantages? Allen states his own position in a straightforward and scholarly fashion. For him "democracy is a system of government which enables individuals in a society to achieve freedom and provides the mechanism to safeguard that freedom." Further, trade unions as "voluntary organizations" have arisen out of the conditions of the capitalist system and are "essential for the maintenance and extension of democracy."

However, Allen states quite clearly at the outset his opinion that "the end of trade union activity is to protect and improve the general living standards of its members and not to provide workers with an exercise in self-government." His safeguard lies in voluntarism which compels union leaders to use a democratic mechanism for government. Through the voluntary nature of trade unions, "self government can be put in its rightful place as a means to an end and not an end in itself." This emphasis on "voluntary unionism" of course reveals a basic difference between American and British experience and trade union attitudes.

The author gives British trade unions a reasonably clean bill of health, and seeks to counter "the impression one gets from casual observation . . . that . . . a meagre number of rank-and-file members are active in trade-union government and they, along with officials, appear to have disproportionate power and responsibility." He recognizes the mechanical administrative difficulties faced by large unions and properly questions attendance at local meetings as a major criterion of democracy. This suggests that Allen's book is partly a reply to *The Government of British Trade Unions* published by Joseph Goldstein, an American scholar, in 1952. Goldstein made a detailed study of participation in a branch of the Transport and General Workers Union which caused quite a stir in the public press about apathy and lack of democracy in unions. It is interesting to note that the education director of that largest of British unions is credited in Allen's preface for "constant encouragement and advice."

Allen certainly does not end the argument, nor has he tested the results of his analysis against the actual pattern of local practice, but he has provided sound insight into problems which will increasingly confront trade unions in the future. Although the facts presented on trade union constitutional practice will be less interesting to readers here, the book merits serious attention by American students of union administration.

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Population; Social Welfare and Living Standards

American Income and Its Use. By ELIZABETH E. HOYT, MARGARET G. REID, JOSEPH L. MCCONNELL, and JANET M. HOOKS. (New York: Harper & Bros. 1954. Pp. xxi, 362. $4.00.)

This is the fourth book of a six-volume series on Ethics and Economic Life, begun under the auspices of the Federal Council of Churches.[1] The series is intended to meet the need for a more careful and realistic investigation than heretofore undertaken of economic life and its relation to spiritual and moral values in a Christian frame of reference. Authors of *American Income and Its Use* were left free to write as they wished (Foreword, pp. viii, ix), so that it is in no sense an official statement of the Council's position.

In the Introduction by Miss Hoyt the basic issue is stated—that raised by the abundance arising from a rapid secular growth of income. Of the two main problems associated with our high and rising income, its distribution and its use in terms of welfare, Miss Hoyt regards the second as more difficult to solve.

Though well written and expressing many excellent ideas, Miss Hoyt's discussion of the ethics of consumption (Part I) fell short of the reviewer's expectations. Recent literature on the economics of welfare is not used, and in general her discussion is not directly and specifically related to the data and issues bearing on the distribution and use of income mainly presented in Parts II and III. Of five chapters on ethics, the second, on technology, and the fifth, a case study of an American family illustrating the wise and ethical use of income, are excellently done. Hoyt's chapter on philanthropy (Ch. 4) is good, but surprisingly does not even mention the Community Chest and United Crusade, and gives scant consideration to the relation of private philanthropy to the social security program. The discussion of intelligent choice of resources and consumption goods to maximize satisfactions (Ch. 1) is so highly generalized as to limit its usefulness.

Miss Reid's discussion of the economics of income distribution and consumption in Part II is an excellent summary statement of current thought on these subjects. Materials presented are extensive in coverage, discriminatingly chosen, usually qualified as to their limitations, and well organized and documented. The statistical tables in Appendix 2, and the City Worker's Budget in Appendix 1 provide useful supplements.

However, there are a few critical comments which should be made. Turning first to the discussion of income distribution and its changes in Chapters 7 and 8, it seems to the reviewer that a brief explanation of the causes of income inequality is needed. Moreover, Miss Reid's conclusion (pp. 132-34)

[1] This organization was merged in 1951 with the National Council of Churches of Christ. Volumes published are: in 1953, A. Dudley Ward, ed., *Goals of Economic Life;* K. E. Boulding, *The Organizational Revolution;* H. R. Bowen, *Social Responsibilities of Business Men;* in 1954, H. R. Bowen, John C. Bennett, William Adams Brown, and G. Bromley Oxnam, *Christian Values and Economic Life*. To be published is A. Dudley Ward, Stanley Leavy, and Lawrence Freedman, *The American Economy and the Lives of People*.

that there is a trend toward increasing equality of incomes should have been more carefully qualified, in view of the shortcomings of existing evidence on this subject. In her chapter on consumption and welfare Miss Reid does not define welfare. From the context it appears that she thinks of welfare as being related to the level of consumption. This view may be correct yet one wonders if welfare in the sense of satisfactions, should not more appropriately be related to standards of consumption and of living, since these refer to what is considered desirable, as opposed to what is actually experienced. Though Miss Reid states that the definitions of Joseph S. Davis of levels and standards of consumption and living are to be used (p. 137), mortality and morbidity rates relate to the level of living, not consumption. Also, in Chapter 10, "Standards and Costs of Living," Miss Reid's "social standards of living" are normative consumption standards in the Davis sense, not standards of *living.*[2]

In the four chapters of Part III McConnell and Mrs. Hooks first examine attitudes toward dependency as they relate to changing family structure and functions produced by urbanization and industrialization. Dependency problems arising from broken, large, and aged families, *i.e.*, from "defects in family structure," are next considered. Social provision for dependents through aid to dependent children, old age assistance, Old Age and Survivors Insurance, and other plans is then critically examined in terms of economic soundness and existing needs. On all of these subjects the authors have done a very competent job. It is regrettable, however, that they did not also consider dependency caused by sickness and unemployment.

Muelder's Commentary (Part V) is one of the most interesting parts of the book. He reviews the authors' conclusions, and considers the ethical issues raised in terms of what may be described as his interpretation of Christian ethics. The reviewer does not feel competent to pass judgment on the validity of Muelder's interpretation of the Christian ethic as it applies to such subjects as maximizing satisfactions; the relation of rights to needs; living in an era of abundance; justice, equality and freedom as these relate to the distribution of income; and the "welfare state." His section, "The Church And Consumer Education," contains many useful suggestions to the churches on this subject.

The criticisms made above are not intended to convey the impression that this is an inferior work. On the contrary, *American Income and Its Use* is a first-rate book. It accomplishes rather well its major purposes, and should prove useful and stimulating reading for both its church audience and professional economists.

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[2] *Cf.* J. S. Davis, "Standards and Content of Living," *Am. Econ. Rev.*, Mar. 1945, XXXV, 6.

TITLES OF NEW BOOKS

Economic Theory; General Economics

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CARRELL, E. *Allgemeine Volkswirtschaftslehre.* 6th ed. (Heidelberg: Quelle and Meyer, 1954. Pp. xii, 318. DM 14.)

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NELSON, O. *Stone age economists in the atomic age.* (New York: Pageant Press. 1954. Pp. ix, 160. $3.)

The author holds that the progress of economics has been held back by the failure to "recognize economic expressions as a distinct division of mathematics." The present book undertakes to demonstrate some of the consequences of this recognition. Three functions are revealed: the profit function, the business function, and the tax function. "The mathematical relationship between the independent profit function and its two dependent functions reveals that the inter-series monetary velocities in the profit function cannot possibly sustain the combined drag-down of its two dependent functions, and so one of those dependent functions must be altered by law to become an independent function. Of the two dependent functions, the business function . . . is the least detrimental—hence socializing or semi-socializing that function, as many nations have done, and leaving the more detrimental tax function as the dependent function, cannot sustain the requirements of all three functions as completely as can the alternative of changing the tax function into an independent function by the simpler and more effective procedure of having a sovereign nation create the money for all its governmental requirements" (pp. 146-48).

ROLPH, E. R. *The theory of fiscal economics.* (Berkeley and Los Angeles: Univ. of California Press. 1954. Pp. xiv, 310. $4.50.)

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NOTES

THE A.C.L.S. STATEMENT SUBMITTED TO THE REECE COMMITTEE

[*Editor's Note:* Mr. Mortimer Graves, executive director of the American Council of Learned Societies (of which the American Economic Association is a constituent society) has prepared the following note with regard to the statement which was submitted to the House of Representatives Select Committee to Investigate Tax Exempt Foundations (the Reece Committee) by the A.C.L.S.]

After the first Select Committee of the House of Representatives to Investigate Tax Exempt Foundations (the Cox Committee) had concluded its operations and reported the discovery of nothing reprehensible in the activities of those foundations with which American scholarship is accustomed to deal, a new Select Committee of the House of Representatives to Investigate Tax Exempt Foundations was formed under the chairmanship of Representative B. Carroll Reece of Tennessee. The studies made by the investigative staff of this second committee were not confined to the foundations, but considered at much length the "accessory organizations," supposed to distribute the foundations' money, the Social Science Research Council, the American Council on Education, the National Education Association, and the American Council of Learned Societies, and the like.

These staff studies pictured the foundations and the accessory organizations as combined in a tight "interlock" which not only dominated American scholarship, social science, and education, but by means of this domination had succeeded, in the fifty years since the organization of the first great foundations, in undermining American political stamina, in socializing our educational structure, and in leading the country far down the road to internationalism and collectivism. After receiving these reports and listening to half a dozen anti-foundation witnesses, the Committee suspended public hearings, not, however, before the studies and the testimony had received wide newspaper publicity. The Committee, thereupon, gave the foundations and accessory organizations opportunity to file rebuttal statements.

The rebuttal statements of the Social Science Research Council and the American Council on Education amply demonstrated the fantasy of the charges made against these organizations and their fields of concern. It devolved upon the officers of the American Council of Learned Societies to speak on behalf of the humanities. Such a statement was accordingly drafted and verified by the Executive Staff and presented by the Chairman, President C. W. de Kiewiet, of the University of Rochester.

In presenting the statement to the Reece Committee President de Kiewiet said:

> I cannot forego the opportunity of commenting upon the unwisdom of the aspersions that have been cast upon the scholars and teachers for whom the American Council of Learned Societies is proud to speak. Education is a principal architect of American greatness in all fields, political as well as scientific, cultural as well as technological. We owe our solidarity in an age of crisis to the manner in which we have taught the history and politics of the nation. An attack upon education becomes in part an attack upon American history, an attack, indeed, upon the defensive system of this country. Faith is lessened, courage is diminished, and essential bonds are broken. To lay broad and loose charges against education can itself become a form of subversion against which it is the duty of intellectual leaders to speak forcibly and emphatically.
>
> I feel grateful to the Reece Committee for at least recognizing that humane studies are powerful forces in any society. Statements apparently made by staff members of the Committee misconstrue the nature of that power and assign to it a baneful influence. The American Council of Learned Societies welcomes the opportunity to reassert its faith in the beneficial power exercised by the thought and studies of the responsible men who make the study of man their life work. It is an influence that cannot be suppressed. Only those societies try to do so that are fearful of freedom.

What we know to be great in our society, our political thought, our humane laws, our sense of human dignity, our powers of self-discovery and self-realization, are all born of the humanist mind. To preserve and extend these is the real function of all those for whom the American Council of Learned Societies elects to speak. Wisdom cannot be bought, and accepts no dictation. Scholarship and learning are the foundation of the nation's wisdom and skill. A society in which scholars and teachers are held in honor is far more likely to produce the wisdom and skill without which it cannot survive in the modern world.

The Executive Offices of the ACLS, 1219 Sixteenth Street, N.W., Washington, D.C., will be happy to send a copy of the statement and the letter of presentation to any reader of the *American Economic Review* who requests it.

Publications Sponsored by the American Economic Association

Léon Walras' *Elements of Pure Economics* translated by William Jaffé is the first of our "Translation Series." Because of its significance, it has been co-sponsored by the Royal Economic Society. It is now available through Richard D. Irwin, Inc., Homewood, Illinois, and members may obtain copies at the special rate of $6.00 (list price $7.50) by mentioning membership on the order to the publisher.

The *University Teaching of Social Sciences: Economics,* sponsored jointly by the International Economic Association and UNESCO and containing reports and papers presented at the Talloires Conference, August 1951, is now available through the UNESCO agent, the Columbia University Press. A special rate may be obtained by members if orders are placed with Dr. James Washington Bell, Secretary, American Economic Association, Northwestern University: $2.00 net, plus 15 cents postage (list price $3.00). Checks, however, should be made out to the Columbia University Press.

Other Publications

The Office of Distribution, Business and Defense Services Administration, U.S. Department of Commerce, has announced the conversion of their monthly publication, the *Distribution Data Guide,* to a subscription basis. The *Guide* lists brief annotations of selected recent publications and reports, both government and nongovernment, which contain basic information and statistics for use in market research, merchandising, sales promotion, advertising, and allied subjects of interest to businessmen and others engaged in the distribution of goods or services. The annual subscription rate is $2.00, domestic, and $2.50, foreign; individual copies, 15¢. Subscriptions will be received by the Superintendent of Documents.

A new national society, the Institute of Management Sciences, has been established with the objective of unifying scientific knowledge that contributes to the understanding and practice of management. The Institute will publish a journal, *Management Science,* which will include research papers and survey papers dealing with scientific analysis and theory of management. Professor C. W. Churchman, of Case Institute of Technology, has been appointed managing editor. Professor W. W. Cooper, Carnegie Institute of Technology, has been elected president of the Institute. Information on membership or subscriptions to the journal may be obtained from Mr. George Kozmetsky, Litton Industries, Beverly Hills, California.

The Middle East Institute is preparing for publication an annual *Survey of Current Research on the Middle East.* All those currently engaged in research on the Middle East are urged to submit information on their projects including the topic of investigation, sponsoring organization, and estimated date of completion. Communications should be addressed to the Middle East Institute, 1761 N Street, N.W., Washington 6, D.C.

International Seminar on Input-Output Analysis

A seminar on input-output analysis, sponsored by the University of Pisa, in cooperation with the European Office of the United Nations, was held in Varenna, Lake Como, Italy from June 27 to July 10, 1954. Professor Giuseppe Bruguier-Pacini (University of Pisa) headed the organizing committee of which Dr. Tibor Barna (European Office of the

United Nations), Dr. Vera Cao-Pinna (Comitato Nazionale per lo Studio della Congiuntura), and Professor Hollis Chenery (Stanford University) were members. Professor Wassily Leontief (Harvard University) acted as chairman of the Conference.

Academic and government economists and statisticians from the United Kingdom, Norway, Denmark, Netherlands, Belgium, France, Spain, Western Germany, Austria, Israel, and the United States attended, in addition to a large Italian delegation from universities, government agencies, and industrial organizations. Representatives from international organizations, such as the European Office of the United Nations, the Organization of European Economic Cooperation, the Coal and Steel Community, UNESCO, and the Bank for International Settlements were also present. Representatives from the United States, in addition to Professors Leontief and Chenery, included Mr. W. Duane Evans (Bureau of Labor Statistics), Dr. Elizabeth W. Gilboy (Harvard University), and Dr. Harry M. Markowitz (RAND Corporation).

The lectures and seminars dealt with the theoretical and empirical aspects of input-output analysis and with presentation of the results of the substantial amount of empirical work in this field which has been undertaken in recent years in various European countries.

A wide variety of subjects characterized the lectures, although the primary emphasis lay on practical applications of input-output techniques. The papers ranged from theoretical discussions of input-output analysis and social accounting by Professors Leontief and Richard Stone (Cambridge University), the consideration of the statistical aspects of classification and aggregation (Dr. Barna) and of input-output and social accounts (Mr. J. Sandee, Netherlands and Mr. O. Aukrust, Norway) to the application of input-output methods to problems of consumption (Dr. Gilboy), interregional models and underdeveloped countries (Professor Chenery). The actual experience of Italy (Dr. Cao-Pinna) and other countries in the use of input-output techniques was also presented in a series of lectures.

The round-table discussions were devoted to more technical and theoretical matters. Among these may be mentioned Professor Ragnar Frisch's exposition of his new linear programming technique, Mr. Duane Evans's analysis of computational problems, Professor Stone's presentation of a generalized Leontief system for the analysis of consumer behavior, and Mr. Sevaldson's (Norway) discussion of the stability of structural relationships. Professor Fabbrini (University of Trieste) concluded the round tables with an appraisal of input-output developments.

A volume containing the principal papers will be published in English under the auspices of the University of Pisa.

Research Fellowships

The Ford Foundation has announced its Foreign Study and Research Fellowship competition for the academic year 1955-56. The awards, which will be made in April and May, 1955, are for study and research dealing with three areas: Africa, Asia and the Near East, and Soviet Russia and Eastern Europe. The fellowships, covering from one to three years of post-graduate work either in the United States or abroad, are designed to provide training for persons at a variety of academic and professional levels. Students just beginning their graduate work may apply, as well as advanced scholars. Details and application forms may be obtained from the Ford Foundation, Foreign Study and Research Fellowship Program, 477 Madison Avenue, New York 22, New York. The deadline for filing applications is January 7, 1955.

On October 15-17, the department of economics of Beloit College presented a lecture symposium on the subject "The Limits of Government Intervention." Lectures were given by F. A. Hayek, Fritz Machlup, Aaron Director and Frank H. Knight. About fifty visiting economists participated in the symposium.

An Institute on Economic Development, organized under the direction of William H. Nicholls, was held at Vanderbilt University August 30 to September 24 under a contract

with the Foreign Operations Administration. The institute was attended by forty-eight technical specialists from twenty-two countries. Among the lecturers were Arthur E. Burns, Walt W. Rostow, B. U. Ratchford, Irving H. Siegel, Warren S. Thompson, James M. Barker, George Brandow, T. W. Schultz, Walker Cisler and Walter Radius.

The National Bureau of Economic Research has moved both its Broadway and "Hillside" offices to 261 Madison Avenue, New York 16, N.Y.

Deaths

Sir Henry Clay, warden of Nuffield College, Oxford University, from 1944 to 1949 and honorary member of the American Economic Association, died in July 1954.

Mary J. Foley, of Sacramento State College, died June 21, 1954.

Montfort Jones, of the University of Pittsburgh.

The Most Reverend Francis J. Haas, of East Grand Rapids, Michigan.

William F. Hauhart, of St. Louis, Missouri.

Walter J. Matherly, dean of the College of Business Administration of the University of Florida, died September 25, 1954.

Balthasar H. Meyer, of Washington, D.C., died February 9, 1954.

Carl Meyer, of Chicago, Illinois, died May 28, 1954.

C. Reinold Noyes, of Princeton, New Jersey.

Elizabeth Boody Schumpeter died July 17, 1953.

DR Scott, of the University of Missouri.

Appointments and Resignations

Marcus Alexis, formerly of Michigan State College, has joined the faculty of the University of Minnesota as an instructor.

John E. Altazan has been appointed assistant professor of international trade at Loyola University of the South.

Edward Ames has resigned from the Federal Reserve Board to accept an appointment as associate professor of economics at Purdue University.

Jahangir Amuzegar has been appointed lecturer in economics at the University of Michigan.

John W. Anderson has been appointed assistant professor of accounting in the School of Business Administration of the University of Massachusetts.

Wayne D. Angell has been appointed instructor in economics at the University of Kansas.

John W. Ashley has been appointed assistant professor of economics at Occidental College.

Robert Bartels, of the Ohio State University, is studying agricultural and other marketing problems under a Fulbright research scholarship assigned to the University of Salonica, Greece and independently under the United States Educational Foundation in Greece.

Milton S. Baum has been appointed assistant professor of economics at Sacramento State College.

Nicholas A. Beadles is instructor in the department of economics and business administration at Alabama Polytechnic Institute.

Rue L. Beale, formerly with the Corps of Army Engineers, has been appointed research associate in the University of Kentucky Bureau of Business Research.

Gordon E. Bell has been appointed assistant professor of accounting at Duke University.

Maurice C. Benewitz has been appointed lecturer in economics at Michigan State College.

Emile Benoit-Smullyan is now economist for the McGraw-Hill Publishing Company.

George C. S. Benson has resumed the presidency of Claremont Men's College after serving as director of research for the Commission on Intergovernmental Relations in Washington, D.C. W.Bayard Taylor served as acting president in his absence.

Charles Berry has been appointed instructor in economics at Yale University.

Lee Bidgood has retired from duties at the University of Alabama where he has served as head of the department of economics and, since its founding, in 1920 dean of the School of Commerce and Business Administration.

Roy G. Blakey, professor emeritus of the University of Minnesota, has returned to this country after having served as visiting professor at the University of Ankara the past three years.

Mark Blaug has been appointed instructor in economics at Yale University.

Henry S. Bloch has been appointed visiting professor of economics at Yale University.

John W. Bowyer, Jr., has been named assistant dean of the School of Business and Public Administration, Washington University.

Martin Bronfenbrenner, of the University of Wisconsin, will be visiting professor of economics at Carnegie Institute of Technology during the second semester of the present academic year.

Robert C. Brooks, Jr., has been appointed assistant professor of marketing in the College of Business Administration, University of Georgia.

Dwight S. Brothers has been appointed instructor in economics at Princeton University.

Henry Broude has been appointed instructor in economics at Yale University.

Daniel H. Buchanan has accepted an appointment as professor of economics in Lambuth College, Jackson, Tennessee.

Lloyd J. Buckwell, Jr., has been appointed instructor at the University of Minnesota.

Edward C. Budd has been promoted to assistant professor of economics at Yale University.

Rondo E. Cameron will be on leave from the University of Wisconsin next year to carry on research in France and elsewhere in Europe on the Credit Mobilier.

William Capron has been appointed visiting assistant professor of economics at Stanford University.

Albert Caproni, Jr., has been appointed instructor in accounting at the Alabama Polytechnic Institute.

Alfred B. Carlip, formerly of Wesleyan College, has been appointed assistant professor of economics at Allegheny College.

A. E. Cascino, formerly director of market research, has been advanced to the newly created post of director of marketing for the Crosley and Bendix Home Appliances Division of Avco Manufacturing Corporation.

Lowell J. Chawner is now on the staff of the Council of Economic Advisers.

Earl F. Cheit, formerly of the University of Minnesota, has joined the faculty of Saint Louis University.

Pao Lun Cheng has been appointed instructor in business and economics at the University of Maine.

Alpha C. Chiang has been appointed assistant professor of economics at Denison University.

Frank C. Child has been promoted to assistant professor of economics at Pomona College.

Rockwood Chin has been promoted to professor of economics at Berea College.

Ya Lun Chou has been appointed assistant professor of economics at Rensselaer Polytechnic Institute.

Virgil L. Christian, Jr., formerly instructor in economics, has been appointed research associate in the Bureau of Business Research of the University of Kentucky.

Robert W. Clower is at Lahore as a member of the Washington State College—F.O.A. program with the University of the Punjab in Pakistan.

Arthur L. Cobb, of the Tennesse Valley Authority, has been appointed statistician of the Bureau of Business Research of the University of Georgia.

J. Marshall Colcord has been appointed instructor in accounting at the University of Miami School of Business Administration.

David Cole has been appointed visiting professor in the New York State School of Industrial and Labor Relations at Cornell University.

Robert G. Cook has been appointed faculty lecturer in management in the School of Business of Indiana University.

S. Leonard Dart has joined the staff of Claremont Men's College to direct the dual degree program in management-engineering recently established in association with Stanford University.

Ralph K. Davidson has been appointed assistant professor of economics at Purdue University.

Keith Davis has been promoted to professor of management in the School of Business, Indiana University.

Richard M. Davis, formerly of Lehigh University, has been appointed associate professor of economics at the University of Oregon.

C. C. Dawson is head of the department of business administration at Lincoln Memorial University, Harrogate, Tennessee.

Townes L. Dawson, formerly of Eastern New Mexico University, has been appointed associate professor of business law in the College of Business and Public Administration, University of Maryland.

Albert H. Dehner has been appointed professor of real estate at the University of Florida.

David P. Delorme has been appointed instructor in economics at Idaho State College, Pocatello, Idaho.

Harold Demsetz, of Northwestern University, has joined the faculty of the University of Minnesota as an instructor.

Robert Dinman has been appointed professor of accounting at the University of Florida.

Arch R. Dooley, formerly of the Harvard Graduate School of Business Administration, is dean of the School of Business Administration of the University of North Carolina.

Peter Dorner, formerly of the University of Tennessee, has been appointed assistant professor of agricultural economics at the University of Wisconsin.

Frank Dunbaugh has been appointed lecturer in marketing in the School of Business Administration of the University of Miami.

David Durand is research associate at the Massachusetts Institute of Technology.

Howard S. Dye has been promoted to professor of economics at the University of Tennessee.

Elvis L. Eckles, formerly of the University of Illinois, has been appointed professor of economics and chairman of the department of economics and business administration at Allegheny College.

Robert S. Eckley, formerly of the Federal Reserve Bank of Kansas City, has taken a position as economist with the Caterpillar Tractor Company in Peoria, Illinois.

Corwin D. Edwards is visiting professor of economics at the University of Virginia.

E. J. Enright has resigned from Tufts College to accept a position at the Harvard Business School.

Edmond L. Escolas, formerly government economist, has been appointed assistant professor of business administration at the University of Wyoming.

Roland B. Eutsler has been appointed acting dean of the College of Business Administration of the University of Florida.

William H. Fink, formerly research associate of the California Senate Tax Committee, has been appointed assistant professor of economics at the University of Arizona.

Monroe Fischer has been appointed instructor in the department of economics and business administration of Lafayette College.

Lyle C. Fitch, of Columbia University, has accepted a position as senior management consultant in charge of fiscal and economic research in the Division of Administration, Office of the Mayor of New York City.

Edward J. Fox, of the University of Western Ontario, has been appointed visiting professor of marketing in the School of Business Administration of the University of Miami.

William M. Fox has been appointed assistant professor of industrial relations and management at the University of Florida.

V. C. Fowke has been appointed acting head of the department of economics and political science at the University of Saskatchewan for the current academic year.

William J. Frazer, Jr., has been appointed instructor in economics at Rensselaer Polytechnic Institute.

Earl B. French, formerly of the University of Maine, has been appointed assistant professor of economics at Bucknell University.

William B. Gates, Jr., has been appointed associate professor of economics at Williams College.

Dwight L. Gentry, formerly of Wake Forest College, has been appointed associate professor of marketing and advertising in the College of Business and Public Administration, University of Maryland.

John P. Gill, of the Atlanta Division, University of Georgia, has been appointed professor of economics and director of the University's Bureau of Business Research, Athens.

Richard M. Gillis has been promoted from instructor to assistant professor of finance in the School of Business Administration of the University of Massachusetts.

Gerald J. Glasser has been appointed to an instructorship in statistics, New York University, to replace Dr. Ernest Kurnow who is on leave for work in Turkey.

Leland J. Gordon has resumed his duties at Denison University after serving as visiting professor in the University of Maryland Overseas Program in England, Austria, and Germany.

Willard J. Graham, of the University of North Carolina, has been elected president of the American Accounting Association.

Joseph Grunwald has resigned from the City College, New York, to accept an appointment at the University of Chile.

Warren J. Gustus has been appointed instructor in economics at Duke University.

Harold Guthrie has been appointed instructor in economics and assistant director of research in the Cowles Foundation at Yale University.

Percy L. Guyton, formerly of King College, Bristol, Tennessee, is now associate professor of economics at Memphis State College.

H. J. Habakkuk, of Oxford University, is visiting lecturer at Harvard University for the current academic year.

Lawrence C. Hackamack, of the University of Iowa, has been appointed assistant professor of industrial administration in the School of Business Administration of the University of Massachusetts.

Challis A. Hall has been promoted to associate professor of economics at Yale University.

William Hamburger, formerly of Stanford University, has accepted a position with RAND Corporation, Santa Monica, California.

Sib O. Hansen has been promoted to associate professor of accounting at Los Angeles State College.

J. O. Einar Hardin has been appointed instructor at the University of Minnesota.

Edwin F. Harris has been appointed assistant professor at the New York State School of Industrial and Labor Relations, Cornell University.

Jerzy Hauptmann has been promoted from assistant to associate professor at Park College, Parkville, Missouri.

R. Murray Havens has been named head of the department of economics at the University of Alabama.

Keith R. Heller, formerly of the University of Oregon, is instructor at the University of Minnesota.

William F. Hellmuth, Jr., has been granted a year's leave of absence from Oberlin College to accept a position in the Division of Research and Statistics of the Board of Governors of the Federal Reserve System.

Herbert G. Heneman, Jr., has been promoted from associate professor to professor at the University of Minnesota.

Svend Hermansen has been appointed lecturer at Northwestern University.

Charles M. Hewitt has been appointed faculty lecturer in business law in the School of Business of Indiana University.

R. J. M. Hobbs is serving as acting dean of the School of Business Administration of the University of North Carolina.

Thomas E. Hogan has been promoted from assistant professor to associate professor in the department of business and economics of the Illinois Institute of Technology.

Stanley C. Hollander, formerly of the Wharton School of Finance and Commerce, has been appointed assistant professor at the University of Minnesota.

Eugene C. Holshouser, formerly with the Florida State Industrial Commission, has been appointed research associate in the Bureau of Business Research of the University of Kentucky.

Charles T. Horngren has been promoted to assistant professor of business administration in the University of Chicago School of Business.

John A. Howard has been promoted to associate professor of business administration in the University of Chicago School of Business.

Forrest Hyde has been appointed lecturer in the Graduate School of Business Administration of the University of Virginia.

Dan James, formerly of the University of Georgia, is now professor of marketing at the University of Arkansas.

Howard G. Jensen, on leave from the University of Idaho, is instructor at the University of Minnesota.

John L. Johnson has been promoted to assistant professor in the Bureau of Business Research, College of Commerce, University of Kentucky.

Marshall Kaplan has been appointed instructor in economics at Williams College.

Owen S. Kern has been appointed instructor in business administration at Louisiana State University.

Charles C. Killingsworth has been granted a year's leave of absence from Michigan State College to serve on a government mission to Indo-China.

Lawrence R. Klein, on leave from the University of Michigan for a year, has a staff appointment at the Institute of Statistics, Oxford University.

Fred W. Kniffin has been appointed faculty lecturer in business administration in the School of Business, Indiana University.

Tjalling C. Koopmans has been appointed visiting professor of economics at Yale University.

Harold C. Krogh has been appointed associate professor of insurance at the University of Kansas.

Ernest Kurnow is on leave of absence from New York University to serve as statistician with the Foreign Operations Administration in Turkey.

Charles E. Landon has been promoted from associate professor to professor of economics at Duke University.

Richard O. Lang is on leave from S. C. Johnson & Son, Inc., to be deputy director in the Office of Industrial Resources, Foreign Operations Administration, Washington, D.C.

Robert F. Lanzillotti has been promoted to associate professor of economics in State College of Washington.

C. L. Lapp has been promoted from associate professor to professor of marketing at Washington University.

Robert G. Layer has been promoted to associate professor of economics at Texas A. & M. College.

Mark Leiserson has been appointed instructor in economics at Yale University.

Robert W. Lentilhon has been promoted from instructor to assistant professor of accounting in the School of Business Administration of the University of Massachusetts.

Eugene M. Lerner has resigned from Elmhurst College to accept an appointment as assistant professor of economics at the University of Idaho.

B. F. Levin has been appointed instructor in economics at Louisiana State University.

Edwin H. Lewis has been promoted from associate professor to professor at the University of Minnesota.

Herbert H. Liebhafsky has been appointed instructor in economics at the University of Michigan.

Irma A. Linse has been appointed lecturer in economics at Michigan State College.

Byron E. Logan has been appointed assistant professor in the department of economics and business administration at Alabama Polytechnic Institute.

John D. Long has been promoted to assistant professor in the School of Business of Indiana University.

Victor M. Longstreet has been appointed vice president of the Federal Reserve Bank of St. Louis and manager of the Louisville branch.

James B. Ludtke has been promoted from assistant professor to associate professor of finance in the School of Business Administration of the University of Massachusetts.

Melvin Lurie has been appointed instructor in economics at the University of Connecticut.

Richard M. Lyon has been appointed assistant professor of industrial relations and management at the University of Florida.

Ronald MacDonald has been appointed instructor in economics in the School of Business of Fordham University.

Duncan MacIntyre is on leave from the New York State School of Industrial and Labor Relations to serve as a staff member of the Ives Committee on Health and Welfare Funds.

John E. MacNab, formerly John W. Dafoe fellow in Canadian-American Relations, has been appointed instructor in history at Parsons College, Fairfield, Iowa.

Carl H. Madden, of the University of Virginia, has accepted a position in the research division of the Federal Reserve Bank of New York.

Thomas A. Mahoney is an instructor at the University of Minnesota.

Allan B. Mandelstamm has been appointed instructor in economics at the University of Michigan.

William Markell has been appointed instructor in business and economics at the University of Maine.

L. Dennis Marlowe is an assistant professor of business law at the Ohio State University.

Jacob Marschak has been appointed professor of economics at Yale University.

Fred Massarik has been appointed acting instructor in personnel management in the School of Business Administration, University of California at Los Angeles.

G. H. Mattersdorff has joined the department of economics at the University of Massachusetts.

Kenneth H. McCartney, formerly of the University of Minnesota, has been appointed to the faculty of Smith College.

Lionel W. McKenzie has been promoted to associate professor of economics at Duke University.

James P. McMahon has been promoted from associate professor to professor of finance in the School of Business Administration of the University of Miami.

Claude McMillan has been promoted from assistant to instructor in business organization at Ohio State University.

Lee J. Melton, Jr., formerly of Louisiana State University, has been appointed assistant professor of economics at the University of Florida.

Frank Miller has been appointed assistant professor at the New York State School of Industrial and Labor Relations, Cornell University, for the current year.

Charles N. Millican has been promoted to assistant professor of economics at the University of Florida.

Charles R. Minton, formerly of Bowling Green University, has been appointed research associate in the Bureau of Business Research, University of Kentucky.

Franco Modigliani, of the Carnegie Institute of Technology, will lecture on economic theory and econometrics at the Universities of Rome and Milan as a Fulbright lecturer in the second semester of the current academic year.

William Moeckel, formerly of the University of Georgia, is assistant professor of marketing at the Ohio State University.

David D. Monieson, formerly of Ohio State University, is now assistant professor of marketing at Queen's University.

Joe R. Motheral is on leave from the Department of Agriculture to serve as land tenure advisor to the U.S. Operations Missions, FOA.

Mary E. Murphy, of Los Angeles State College, represented the American Accounting Association at the centenary of the Institute of Chartered Accountants of Scotland, celebrated in Edinburgh in the summer of 1954.

Lawrence Nabers has been appointed assistant professor of economics in the College of Business of the University of Utah.

Claron E. Nelson has been appointed lecturer in economics in the College of Business of the University of Utah.

Alfred Nicols, of the University of California at Los Angeles, will present a series of lectures at the University of Chicago and Harvard University in the spring of 1955 under a William Volker fellowship.

John C. Norby has been promoted to associate professor of economics at Los Angeles State College.

Hugh S. Norton has resigned from the University of Maryland to accept an appointment as transportation economist in the Department of Agriculture, Washington, D.C.

Howard C. Nudd has resigned from the Ohio State University to become chairman of the management department of the University of Houston.

Louis W. Nuesse has been promoted to professor of industrial management at the University of Tennessee.

Kenji Okuda has been appointed acting assistant professor of economics at the State College of Washington.

Earle W. Orr has accepted a position as instructor in economics at Purdue University.

Andrew P. Orth, of Florida Southern College, has been appointed assistant professor of accounting in the College of Business of the University of Georgia.

Henry Ostberg is instructor in business law at the Ohio State University.

John Parkany has resigned from Loyola University.

Kenneth Parsons, of the University of Wisconsin, is in the Middle East on a university assignment in cooperation with the Foreign Operations Administration.

Adam Pepelasis, of the University of California, has been appointed lecturer in economics at the University of Buffalo.

Louis B. Perry is acting chairman of the department of economics at Pomona College in the absence of Floyd Bond, who is on leave on a Ford Foundation grant.

Charles D. Phillips, formerly of Westminster College, has been appointed assistant professor of industrial management and personnel in the College of Business and Public Administration of the University of Maryland.

Clinton Phillips, formerly of Vanderbilt University, has accepted an appointment as instructor in economics at the University of Tennessee.

Walter Polner has resigned from the staff of the Institute of Labor and Industrial Relations at the University of Illinois.

John Power, of Williams College, has been appointed visiting assistant professor of economics at Stanford University.

Harry R. Price has been promoted from assistant professor to associate professor of accounting at the University of Miami School of Business Administration.

Ralph B. Price has resigned from the Institute of International Education to become professor of economics and head of the department of economics and business administration at Western Maryland College.

Charles R. Purdy, formerly of the University of Nebraska, has been appointed instructor at the University of Minnesota.

Edward D. Putnam, Jr., has been appointed instructor in economics at Texas Western University.

Leonard Rall has been granted leave from Michigan State College to serve as professor of economics in the School of Business at São Paulo, Brazil, under a technical assistance contract between FOA and Michigan State College.

Clyde N. Randall has been appointed acting dean of the College of Business, University of Utah, in the absence of Dilworth Walker who is at the University of Rangoon during the current year.

Robert Reierson has joined the staff of the department of agricultural economics of the University of Wisconsin.

Hedwig Reinhardt has transferred from the department of business administration to the department of economics at The City College, New York.

Stanley Reiter, formerly of Stanford University, has accepted a position as assistant professor of economics and mathematics at Purdue University.

Rudolf R. Rhomberg has been appointed instructor in economics at the University of Connecticut.

Emmett J. Rice has been appointed instructor in economics at Cornell University.

Stuart U. Rich has been appointed assistant professor of economics at Tufts College.

Jelle C. Riemersma has been appointed acting assistant professor of economics at the University of California, Berkeley.

Roderick H. Riley, formerly in the Small Defense Plants Administration, is now a consulting economist in Milwaukee.

N. H. Ringstrom, formerly of the University of Arizona, has been appointed associate professor of marketing and management at Loyola University of the South.

Ralph Robey has been appointed professor of banking in the School of Business Administration of the University of South Carolina.

Charles Rollins has been appointed instructor in economics at Stanford University.

Gideon Rosenbluth has resigned from Stanford University to accept an appointment as associate professor of economics at Queen's University, Kingston, Ontario.

Simon Rottenberg has been appointed assistant professor of economics at the University of Chicago.

Jack C. Routson has been appointed instructor in marketing at the University of Illinois.

L. Rucker has been appointed instructor in economics in the department of economics and business administration of Alabama Polytechnic Institute.

Richard Ruggles has been promoted to professor of economics at Yale University.

Norman B. Ryder, formerly of the University of Toronto, has been appointed to the staff of the Scripps Foundation, Oxford, Ohio.

Theodore R. Saldin is at Lahore as a member of the Washington State College-F.O.A. program with the University of the Punjab in Pakistan.

Henry N. Sanborn has been appointed lecturer in economics at Michigan State College.

David J. Saposs, formerly with the Bureau of Labor Statistics, is now research associate with the Harvard Labor-Management History Research Project of the Littauer School.

William E. Schlender has been appointed instructor in management at Ohio State University.

Eugene R. Schlesinger has been appointed assistant professor of economics in the School of Commerce of New York University.

Sterling H. Schoen has been promoted from assistant professor to associate professor of management at Washington University.

Eugene Schooler has been appointed assistant professor of economics at the University of Kansas.

Leon M. Schur has been appointed instructor in business administration at Louisiana State University.

Eli Schwartz has been appointed assistant professor in the department of finance at Lehigh University.

Robert J. Schwartz has resigned from the staff of Columbia Pictures Corporation to accept a position with the Amalgamated Bank of New York.

Glenn R. Scott, formerly of Mississippi Southern College, is now assistant professor of accounting at the University of Tennessee.

William G. Scott has been appointed faculty lecturer in management in the School of Business of Indiana University.

Ralph Seward is visiting professor at the New York State School of Industrial and Labor Relations, Cornell University.

John Sheahan has been appointed instructor in economics at Williams College.

Douglas S. Sherwin, on leave from the Phillips Chemical Company, is secretary of the Federal Facilities Corporation, an agency administering the government synthetic rubber and tin programs.

Allen M. Sievers has been appointed associate professor of economics at the University of Florida.

Paul Simpson, formerly of the University of Oregon, has accepted a position with the Board of Governors of the Federal Reserve System.

Harlan M. Smith has been promoted from assistant professor to associate professor at the University of Minnesota.

Robert E. Smith has been appointed assistant professor of economics in the College of Business of the University of Utah.

Stanley L. Sokolik, formerly of Ohio State University, is assistant professor of marketing at Washington University.

Daniel L. Spencer, formerly of Berea College, has been appointed assistant professor of economics at the American University.

Irwin M. Stelzer has been appointed instructor in economics at the University of Connecticut.

Charles J. Stokes has been appointed dean of the college at Atlantic Union College and has been promoted to professor of economics and business.

Paul Studenski, of the School of Commerce and graduate division of New York University, has been designated professor emeritus of economics.

Glenn W. Sutton has been granted leave from the College of Business Administration of the University of Georgia to serve as U.S. Tariff Commissioner.

Ralph D. Swick has been promoted to associate professor of accounting in the School of Business of Indiana University.

William N. Talmers has been appointed assistant professor of economics at Bucknell University.

Selig Taubenblatt, of the University of Michigan, has been appointed Ford instructor in economics for the current academic year.

Pedro C. M. Teichert has been appointed instructor in economics at Louisiana State University.

Philip S. Thomas has been appointed instructor in economics at the University of Michigan.

Courtland Thompson has been appointed instructor in management in the University of Miami School of Business Administration.

William O. Thweatt has been awarded a studentship at Nuffield College, Oxford under an extended Ford Foundation grant.

Howard L. Timms has been appointed faculty lecturer in management in the School of Business of Indiana University.

James Tobin has been appointed director of research in the Cowles Foundation for Research in Economics at Yale University.

C. F. Joseph Tom has resigned from Beloit College to accept an appointment as assistant professor of economics at Lebanon Valley College.

Joseph Towle, of Northwestern University, has been appointed professor of management at Washington University.

Paul B. Trescott is now assistant professor of economics at Kenyon College.

Merlyn N. Trued, formerly of the University of Virginia, has accepted a position in the research division of the Federal Reserve Bank of New York.

Ross M. Trump has been promoted from professor of marketing to dean of the School of Business and Public Administration at Washington University.

John G. Turnbull has been promoted from associate professor to professor of economics at the University of Minnesota.

Stanley Vance has been promoted from associate professor to professor of industrial administration in the School of Business Administration of the University of Massachusetts.

R. S. Van de Woestyne, associate dean and dean of students in the School of Business of the University of Chicago, has been promoted to professor of business administration.

Malcolm E. Wallace is now production change analyst, Temco (Garland) Aircraft Corporation, Garland, Texas.

Merle Welshans has been appointed associate professor of finance at Washington University.

James E. Wert, formerly of Ohio State University, is now assistant professor of finance at Lehigh University.

John T. Wheeler is on leave from the University of Minnesota to serve as visiting associate professor at the University of California, Berkeley.

William L. Wilbur has been appointed assistant professor of economics at Memphis State College.

Samuel A. Wolpert has been appointed lecturer in economics at Western Reserve University.

Norman J. Wood has been appointed assistant professor of economics at the University of Tennessee.

Alvin B. Wooten, of the University of Arkansas, is visiting professor of economics at Texas A. & M. College.

Stephen T. Worland has been appointed lecturer in economics at Michigan State College.

Dennis H. Wrong has been appointed research associate in the department of political economy, University of Toronto, for the current academic year.

Wallace O. Yoder has been promoted to associate director of the Bureau of Business Research and associate professor of business administration in the School of Business of Indiana University.

Manuel Zaiac has been appointed instructor in the University of Miami School of Business Administration.

Joseph Zemel has been appointed lecturer in business law in the University of Miami School of Business Administration.

Reuben A. Zubrow has been promoted to associate professor of economics at the University of Colorado.

VACANCIES AND APPLICATIONS

The Association is glad to render service to applicants who wish to make known their availability for positions in the field of economics and to administrative officers of colleges and universities and to others who are seeking to fill vacancies.

The officers of the Association take no responsibility for making a selection among the applicants or following up the results. The Secretary's Office will merely afford a central point for clearing inquiries; and the *Review* will publish in this section brief description of vacancies announced and of applications submitted (with necessary editorial changes). Since the Association has no other way of knowing whether or not this section is performing a real service, the Secretary would appreciate receiving notification of appointments made as a result of these announcements. It is optional with those submitting such announcements to publish name and address or to use a key number. Deadlines for the four issues of the *Review* are February 1, May 1, August 1, and November 1.

Communications should be addressed to: The Secretary, American Economic Association, Northwestern University, Evanston, Illinois.

Vacancies

Senior economic analyst: Mature American economist interested in career with American oil company in the Middle East. Require good academic training in economic theory, statistics, international trade, foreign exchange, accounting, and supporting courses, plus experience in application of advanced economic training to analysis of operating and financial problems and problems of underdeveloped economies. Advanced degrees preferred and adaptability to foreign languages and customs desirable. Write, giving full particulars regarding personal history and work experience. Please include telephone number. P167

Economists Available for Positions

Labor, history of economic thought, international economics, business cycles, economic principles: Man, 35, Ph.D. Six years of teaching experience; government, research experience; publications. Currently teaching. Desires teaching position. E419

Labor, comparative economic systems, current economic problems, economic history, economic and social thought, money and banking, public finance, international trade, personnel and manpower policy: Man, 37, married, M.A., and Ph.D. residence completed at Columbia University. Six years of teaching economics and social science as well as background in adult education; 3 years as editor and research director in the book publishing and public relations field dealing with labor relations; 3 years of personnel and industrial relations work in industry; market and opinion research experience. Interested in teaching, research, writing, editorial and/or administrative positions. E434

Industrial surveys, personnel management, market research, international economics: Man, 36, Ph.D. Extensive experience with industry, government, advertising, foreign intelligence; various teaching positions; publications; supervisory, editorial, public relations, and lecturing experience. Several foreign languages. Presently employed in New York City headquarters of an international organization. Interested in more responsible position with industrial, commercial company or large university. E450

Economic history, history of economic thought, economic theory, money and banking, business cycles, international trade and economics, economic geography, corporation finance, investments, marketing: Man, 29, married, Ph.D. (Rotterdam). Resident in Canada for 3 years; fluent English and 4 other languages; dissertation, written in English, published. Some industrial and teaching experience. Desires teaching, research, or advisory position. Available on 4 weeks' notice. E513

Business cycles, economic development, public control, transportation: Man, 35, M.A., Ph.D., University of Pennsylvania. Nine years of teaching experience at leading institutions; 5 years in industry. Broad familiarity with manufacturing and transport industries; good publication record. Desires teaching and/or research. Available January, 1955, if necessary. E528

Economic development of underdeveloped areas, socioeconomic planning, international economics, international relations, economics, African problems and development: Man, 38, married; M.A. (economics), University of Nebraska; M.A. (international administration), Columbia University; Ph.D. thesis to be completed in December, 1954, University of Chicago. Four years of field research and traveling fellowships in Africa and Asia; teaching and public lecturing experience; participated in conference on Africa and economic development, Cambridge University, 1954, at invitation of British government and now preparing material for publication. Available for teaching and/or research in January, 1955. E534

Principles, government and business, government and labor, economic history, regional development, comparative economic systems, labor economics, economic theory: Man, 31, married, Ph.D. Four years of teaching and 2 years of research experience; publications. Will consider any location but prefers midwest or West Coast. Seeks position for June or September, 1955. E535

Economic principles, labor, economic thought, economic history, economic systems, corporation finance, marketing, money and banking: Man, A.M., Northwestern University, Ph.D., Yale University. Fifteen years of economics teaching experience; government experience as section chief. Research project in economic history completed. Available now. E536

Theory of political economy, history of economic thought, economic history, comparative economic systems, public finance, international economics: Man, 33, married, Ph.D. Seven years of university teaching experience. Desires teaching position. Available in June or September, 1955. E537

Transportation, public utilities, business and government, management, insurance, economic history, doctrine, theory, and other economics, business administration: Man, 35, married, M.B.A., Ph.D. Two years as government economist; 3 years of teaching. Desires teaching position at university with facilities and opportunity for research. Available in fall, 1955. E539

Sales and market analyst: Man, 30, B.S., M.S., in business administration. Proven leadership abilities. Presently holds key position in sales and market analysis section of top corporation and deals with all phases of business and sales management. Will consider position heading department in medium-size firm or as assistant chief in larger corporation. E540

Politics and economics with banking and juridical pertinent implications: Man, 40, married; M.A., New York University; has recognized Central European Diploma of Law, Politics, Economics, and Business Administration. Holder of governmental classification as Foreign Affairs Officer and Intelligence Research Specialist; multilinguist, with banking and international trade administrative background, carried into World War II officer's duty in related fields in the army and air force under four Allied flags. Free to travel. Available immediately. E541

Economic and financial history, economic theory, public finance, money and banking, labor economics, corporation finance, investments and allied subjects: Man, 40, married, Ph.D. Now teaching at large Eastern university. Interested in teaching position or perhaps a combination of teaching and some administrative work. E542

Economic theory and principles, history of thought, public and private finance, and other subjects: Man, under 40, single, Ph.D., 1941. Experience in banking, private research, consulting, government service. Nineteen years of highly successful teaching at every level from freshman through Ph.D. program, in several types of institution, the past 7 years in a large state university, with permanent tenure. Has taught virtually every field in economics and business curriculum (except accounting and statistics), specializing in economic theory the past 7 years. Original contributions in scholarly and popular journals and in anthologies, in such diverse fields as economic theory, mortgage finance, women's fashions, and baseball. Pioneering book being published this spring; three other books, including textbook, in advanced stages. *Who's Who in the South and Southwest.* Seeks better position; minimum rank, full professor; minimum salary in South, $7,000 for 9 months, more elsewhere. Available in 1955. E543

Economics of the firm, public utilities, principles, value and distribution theory, public finance, government and business, business cycles: Man, 33, married; M.A., University of Toronto, Ph.D., University of Wisconsin. Teaching since 1945; broad occupational experience, veteran, fellowships, articles in preparation. Desires teaching or position as economist for large firm. Available in June or September, 1955. E544

Public finance, price theory, national income analysis, social control, money and banking, economic principles: Man, 30, married; Ph.D., summer, 1955. Two years of experience in a large state university teaching mainly advanced courses; 2 years of experience as an economist specializing in the analysis of prices and national income for a research division of the federal government. Currently teaching. Desires teaching and/or research position. E545

Market and business analysis: Man, 33; B.B.A. and graduate work in economics, including business trends, monetary economics, national income analysis, statistics, marketing, accounting. Four years of research experience, 3 with major oil company. Statistical sales analysis, sales and population forecasting, area analysis, and product studies. Desires southern California location. E546

Economic principles, histories, thought, and comparative systems, European, American, and Ancient history, economic, human, and physical geography: Man, 40, married; British private schools; B.S., M.A. (U.S.), premedical and medical college (applied optics), 4th year; also completed undergraduate credit requirements for B.A. in sociology and B.S. in science. Responsible for all geography lectures at noted private English college; prepared seniors for entrance examinations to Oxford and Cambridge; director of seminars on international relations. Publications; lectures in 14 countries; broadcasting; editing; independent university research at libraries of London, Capetown, Johannesburg, Paris, Berlin (frei Universiteit), Heidelberg, Brussels, Oslo, Copenhagen, Goteburg. Teaching both sides of the Atlantic. Continuing work for the Ph.D. Desires teaching position at college or university. Available immediately. E547

Financial research and analysis, industrial organization and management, market research and writing, control, budget, economic relations with Near Eastern countries: Man, 49, married; European academic background equivalent to M.A. and Ph.D. in economics, business engineering and accounting. Twenty-four years of diversified experience of which 6 in Switzerland, in banking and investment combined with financing of industrial development, control, budget, and economic research; 5 years of lecturing; written several books and studies in Europe and United States on banking, credit system, investment, and industrialization. Knowledge of several European languages and countries. Seeks position in research, writing, or teaching; also interested in investment-analyst or controller position. E548

Labor economics, industrial relations, economic analysis, money and banking: Man, 36, Ph.D., University of Chicago. Experience includes graduate and undergraduate teaching, top-level federal government position, university research, and industry. Interested in teaching and research. E549

Economics, marketing, statistics: Man, Ph.D. residence requirements completed. Assistant professor and special lecturer for 5 years while conducting research on product development and studying for Ph.D. Previously, 10 years of marketing research; 5 years as government economist supervising and training analysts. Available within commuting distance of New York City, fall, 1955. E550

Labor, economic analysis, social security, medical economics, industrial relations, sample surveys: Man, 39, married, B.S., 4 years of graduate work. Twenty years of experience in government and private research; directed statistical, economic research program in employment, unemployment, benefits; now economist with national research organization; extensive survey and publication experience. Desires responsible research position. E551

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